San Francisco
Stormwater Management Plan

Annual Report 2009
(Year 6)

Prepared by the
San Francisco Public Utilities Commission (SFPUC)
Wastewater Enterprise (WWE)
Collection System Division (CSD)

March 30, 2010

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San Francisco Stormwater Management Program

2009 Annual Report

TABLE OF CONTENTS

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APPENDICES

Appendix A: Historical SWMP and Annual Report Documentation

- RWQCB Letter of Acceptance of SF SWMP (August 2004)
- MOU SWMP Coordination between the Port and SFPUC

Appendix B: Program Administration

- Wastewater Roundtable Agenda (7/7/09)
- Trainings Attended by SFPUC Staff with Information Pertinent to Implementing SF SWMP Minimum Control Measures (2009)

Appendix C: Public Education and Outreach

- Garden Calendar/SF Resident Survey Results (by David Binder Research)
- SF Environment Elementary School Presentations: Annual Report
- Conservation Connection Annual Report (SF Unified School District)
- Follow the Flow: Wastewater Treatment Plant Tour Brochure
- Treatment Plant Post-Tour Survey Results (Resident Tours)
- SFPUC Web Pages with information related to implementing SF SWMP programs
- Rainwater Harvesting MOU

Appendix D: Public Participation and Outreach

- Lake Merced Pilot Stormwater Enhancement Project & Lake Water Quality Monitoring
- Member and Partner Organizations of the Lake Merced Task Force
- Lake Merced Task Force Meeting Agenda (4/15/09)

Appendix E: Illicit Discharge Detection and Elimination

- Illicit Discharge Tracking Log
- Pet Waste Bag Distribution Summary
- Pet Waste Flyer
- MS4 Area Maps (revised March 2010)

Appendix F: Construction Site Stormwater Runoff Control

- Web Pages: Construction Site Runoff Pollution Prevention Requirements (www.sfwater.org)
- Construction Site Inspections Completed (2009)
- Construction Site Assessment Form

- BMP List for Construction Sites
- Copy of "Keep It On Site!" Brochure
- Existing CCSF Code Sections Related To Construction Site Runoff
- Proposed Mandatory Construction Site Requirements (in draft ordinance)
- Draft Ordinance "Stormwater Discharge Controls for Construction Sites"

Appendix G: Post-Construction Controls in New and Redevelopment

- Stormwater Design Guidelines
- SFPUC Commission Agenda Package (12/8/09)
- Proposed Stormwater Management Ordinance (11/24/09 version)

Appendix H: Pollution Prevention and Good Housekeeping for Municipal Operations

- Correspondence SFPUC to Candlestick Park Management (Letter dated 9/18/09)
- Correspondence Candlestick Park Management to SFPUC (Letter dated 12/16/09)
- IPM Annual Report (2006-2007) (Table of Contents and Executive Summary only)

Appendix I: NPDES Phase II General Permit (MS4 Stormwater Discharges)

- State Water Resources Control Board (SWRCB) Water Quality Order No. 2003-0005-DWQ, National Pollution Discharge Elimination System (NPDES) General Permit No. CAS000004, Wastewater Discharger Requirements (WDRs) for Stormwater Discharges from Small MS4s (also referred to as the "Phase II General Permit")

Agencies and Organizations Referenced in this Report

San Francisco

CCSF / City – City and County of San Francisco
BCM – Bureau of Construction Management
BOE – Bureau of Engineering
BSES – Bureau of Street and Environmental Services
Commercial Plan Check Division and Residential Plan Check Division
CSD – Collection Systems Division
DBI – Department of Building Inspection
DPH – Department of Public Health
DPW – Department of Public Works
EH&S – Environmental Health and Safety
GBO - Green Building Ordinance
MPC/UMB – Major Projects and UMB Plan Check Division
MUNI – Municipal Railway of San Francisco
Planning and Development Division
Port – Port of San Francisco
Real Estate Department
RPD – Recreation and Park Department
SFE - San Francisco Environment
San Francisco Planning Department
SFPUC – San Francisco Public Utilities Commission
San Francisco Recreation and Park Commission
SFRA – San Francisco Redevelopment Agency
SFE – San Francisco Department of the Environment
San Francisco Transportation Authority
TIDA – Treasure Island Development Authority

State

BCDC – Bay Conservation and Development Commission
Caltrans – California Department of Transportation
DTSC – Department of Toxic Substances Control
Regional Board – Regional Water Quality Control Board-San Francisco Bay Region
State Board – State Water Resources Control Board
State Department of Parks and Recreation

Federal

DOI – Department of the Interior
GGNRA – Golden Gate National Recreation Area
U.S. Army Corps of Engineers
USEPA – U.S. Environmental Protection Agency
US NAVY

Other

BASMAA – Bay Area Stormwater Management Agencies Association
CASQA – California Stormwater Quality Association

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SECTION 1: INTRODUCTION

1.1 Background

1.1.a Purpose of Report

This 2009 Annual Report provides an update on the progress made by the San Francisco Public Utilities Commission (SFPUC) in implementing the measures and programs set forth in the San Francisco Stormwater Management Plan, the "SF SWMP", during the calendar year of 2009.

The SF SWMP describes the programs that San Francisco (the "City") will implement to minimize stormwater pollution in areas of the City that are served by Municipal Separate Storm Sewer Systems (referred to also as MS4 areas). These are areas where stormwater from storm drains ***does not*** flow into the City's combined storm sewer system. Note that the San Francisco SWMP covers MS4 areas in San Francisco that are not under the Port of San Francisco's jurisdiction; the Port has developed its own Port Stormwater Management Plan to address MS4 areas on Port properties along the City's waterfront. The SFPUC and Port staff work closely and coordinate where feasible on development and implementation of SWMP programs.

1.1.b Regulations

The SF SWMP was prepared pursuant to amendments to the Clean Water Act (CWA) of 1987, which resulted in regulations requiring that designated municipalities obtain coverage under a Statewide General Permit for Stormwater Discharges. The Environmental Protection Agency (EPA) designed these stormwater regulations be implemented in phases. Phase I became effective in 1990 for cities with populations greater than 100,000 and for specific types of industrial and construction sites. Although San Francisco's population is greater than 100,000, San Francisco was exempt from Phase I regulations because most of the City is served by a combined storm sewer system. San Francisco, therefore, must comply with Phase II of the regulations, which became effective March 2003 for jurisdictions in urbanized areas with populations of less than 100,000. Consequently, the San Francisco Stormwater Management Plan is required per the State Water Resources Control Board (SWRCB) Water Quality Order No. 2003-0005-DWQ, National Pollution Discharge Elimination System (NPDES) General Permit No. CAS000004, Wastewater Discharger Requirements (WDRs) for Stormwater Discharges from Small MS4s (also referred to as the "Phase II General Permit").

In December 2003, the SFPUC submitted an application to the SWRCB to obtain coverage under the Phase II General Permit and also submitted a proposed SF SWMP. The application and the SF SWMP were received an accepted by the SWRCB and the SFPUC. Refer to Appendix A for an August 2004 letter from the Regional Water Quality Control Board (RWQCB) documenting receipt and approval of the SF SWMP, and stating SFPUC coverage under the Phase II General Permit.

1.1.c Minimum Control Measures

The Phase II General Permit requires that permittees prepare Stormwater Management Plans which describe Best Management Practices (BMPs), and associated measurable goals, that will fulfill the requirements of the following six minimum control measures (MCMs):

- **Public Education** – The permittee must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the

impacts of stormwater discharges on water bodies, and the steps that the public can take to reduce pollutants in stormwater runoff.

- **Public Involvement / Participation** – The permittee must comply with all state and local notice requirements when implementing a public involvement/participation program.
- **Illicit Discharge Detection and Elimination** – The permittee must adopt and enforce ordinances or take equivalent measures to prohibit illicit discharges. The permittee must also implement a program to detect illicit discharges and inform the public of hazards associated with illegal discharges
- **Construction Site Stormwater Runoff Control** – The permittee must develop a program to control the discharge of pollutants from construction sites greater than one acre in size within its permitted jurisdiction, through an ordinance or other regulatory mechanism. The program must include: erosion and sediment controls, BMP's, waste control measures, site plan review, public input, and site inspections to ensure compliance.
- **Post-Construction Stormwater Management in New Development and Redevelopment** – The permittee must require that long-term post-construction best management practices (BMPs) that protect water quality and control runoff flow be incorporated into development and significant redevelopment projects.
- **Pollution Prevention / Good Housekeeping for Municipal Operations** – The permittee must develop and implement a program that includes a training component and has the goal of preventing or reducing pollutant runoff from municipal operations.

1.1.d Current SF SWMP Areas and Separate Port of San Francisco SWMP

Although the SFPUC and the Port coordinate on issues of mutual concern, each agency develops and administers its own Stormwater Management Plan for the following reasons:

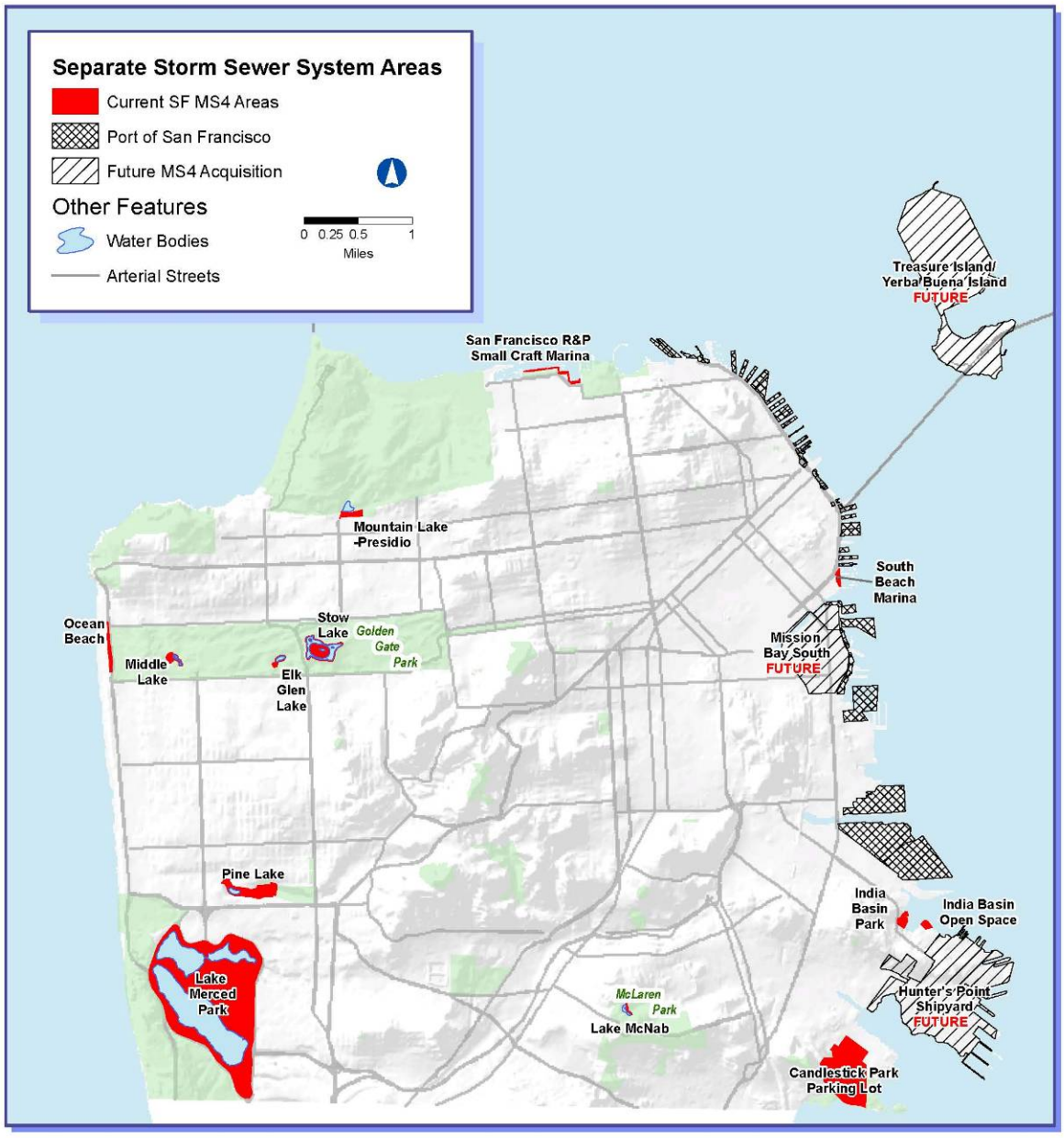
- The City and County of San Francisco divides the ownership of the separate storm sewers between the Port of San Francisco (for areas along the City waterfront) and the SFPUC (for all other separate storm sewers within the City's jurisdiction).
- Activities of concern regarding potential stormwater pollution on Port property are distinct compared to the rest of San Francisco, given the unique nature of operations, facilities and land uses on Port property.
- The majority of MS4s areas under the SFPUC's jurisdiction are discreet storm drains that flow to lakes located on City park property. Alternatively, the Port's programmatic efforts will focus primarily on maritime operations and development, as well as the tourism industry that operates in the vicinity of Fisherman's Wharf.

To setup a framework for coordination between the SFPUC and the Port, the agencies have developed a Memorandum of Understanding for interagency coordination on stormwater management issues. Refer to Appendix A for a copy of the MOU.

Figure 1 identifies MS4 areas in San Francisco, including those that fall under the SFPUC's jurisdiction and those that are covered under the Ports's Stormwater Management Plan. As stated above, the MS4s currently covered by the City's Phase II Permit and under SFPUC's jurisdiction are small discreet systems (e.g., certain storm drains around Lake Merced and some lakes in Golden Gate Park; drains at Candlestick Park Lot and in the parking lot by Ocean Beach). The other MS4 areas shown in Figure 1 are areas that do not currently fall under the City's Phase II Permit, such as redevelopment areas (Hunters Point Shipyard, Mission Bay and Treasure Island), but will at some point in the future when the City and County takes over ownership of these areas.

Refer to Table 1 for a listing of the MS4 areas that are shown in Figure 1.

Figure 1: San Francisco Phase II NPDES Permit Areas (MS4 Areas)[1]



[1] The SFPUC is engaged in an ongoing effort to revise the maps of the separate sewer areas as any additional information is identified.

Table 1: List of San Francisco MS4 Areas (2009)

Area	Receiving Water	MS4 Administrator (Permit Holder)	Operating/Managing Department	Type of MS4 [1]
San Francisco Public Utilities Commission Jurisdiction [2]				
Candlestick Park Stadium Parking Lot	SF Bay	SFPUC	SF Recreation and Parks	Catch Basins
Golden Gate Park	Elk Glen Lake	SFPUC	SF Recreation and Parks	Drop Inlets
Golden Gate Park - McLaren Park Lake(s)	Lake McNab	SFPUC	SF Recreation and Parks	Drop Inlet
Golden Gate Park	Middle Lake	SFPUC	SF Recreation and Parks	Drop Inlet
Golden Gate Park	Stow Lake	SFPUC	SF Recreation and Parks	Drop Inlets
India Basin -Open Space Area -Shoreline Park	SF Bay	SFPUC	SF Redevelopment Agency	Drop Inlets
Lake Merced Park	Lake Merced	SFPUC	SF Recreation and Parks	Catch Basins
Mountain Lake Park	Mountain Lake	SFPUC [3]	SF Recreation and Parks	Drop Inlet
Ocean Beach – Parking Lot	SF Bay	SFPUC	SF Recreation and Parks, but also maintained by SF Department of Public Works	Catch Basins
San Francisco R&P Small Craft Marina	SF Bay	SFPUC	SF Recreation and Parks	Catch Basins
South Beach Harbor	SF Bay	SFPUC	San Francisco Redevelopment Agency	Drop Inlets
Stern Grove	Pine Lake	SFPUC	SF Recreation and Parks	Drop Inlets
Port of San Francisco Jurisdiction				
Port of San Francisco	SF Bay	Port of San Francisco	Port of San Francisco	Refer to Port of San Francisco Storm Water Management Plan
Future San Francisco Areas of Acquisition				
Treasure Island / Yerba Buena Island	SF Bay	U.S. Navy	U.S. Navy	N/A at this time.
Mission Bay–South [4]	SF Bay	Catellus	SF Redevelopment Agency	N/A at this time.
Hunters Point Shipyard	SF Bay	U.S. Navy	U.S. Navy	N/A at this time.

1. As stated in the Phase II General Permit, an MS4 (Municipal Separate Storm Sewer System) is conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) designed or used for collection or conveying storm water; (ii) which is not a combined sewer; (iii) which is not part of a Publicly Owned Treatment Works (POTW).
2. Lobos Creek was previously identified in the SFPUC SWMP and in past Annual Reports to be an MS4 area; however a 2009 field survey determined that Lobos Creek is not an MS4 site (refer to Section 8 of this 2009 Annual Report for further details on why this determination was made)
3. There are also storm drains that flow into Mountain Lake that are on Presidio property, however, these drains are not under the control or jurisdiction of the City and County of San Francisco.
4. Mission Bay -North is in combined sewer system area.

***SFPUC City-Wide Approach to Implementing Minimum Control Measures*:**

Due to the fact that the current MS4 areas under the SFPUC's jurisdiction are small and in disparate locations, and that some very large separate storm sewer areas are expected to come under the City's ownership in the future, the SFPUC has taken a common sense and long-term approach toward implementing the SF SWMP The SFPUC is developing an aggressive MS4 stormwater program which reflects the fact that the SFPUC is prepared to address the future, when larger areas (such as current redevelopment areas) will be covered under the City's Phase II General Permit. Accordingly, SFPUC's approach in developing the SF SWMP programs has been to ensure that the small existing MS4 areas are being addressed, while concurrently developing aggressive, citywide programs and requirements which will eventually apply to all storm drains in the City – those is areas served by either combined storm/sewer systems or separate systems.

This approach will provide seamless programs and policies for residents and business. The objective is to enforce one message -- that "only rain down the drain" -- applies *everywhere* in San Francisco. This avoids confusion which could arise from residents and businesses attempting to determine which programs and requirements apply to catch basins and which apply only to storm drains. It has also meant that some of the more ambitious SF SWMP objectives have taken longer to achieve than anticipated, because they must be developed and vetted as citywide programs and policies. In spite of some delays in timelines with regards to meeting particular objectives, the SFPUC continues to implement the SF SWMP and is moving forward on all program goals and objectives.

1.1.e Highlights and Accomplishments for the Current Reporting Year

Below are highlights for how the SFPUC continued to implement the SF Stormwater Management Plan minimum control measures in 2009. Greater details are provided in the Sections 2 through 8 of this annual report.

Program Administration

- A key achievement in 2009 was that the Stormwater Regulatory Specialist position that had been vacant for over a year and a half due to hiring freezes was released for hiring. Interviews were held in early 2010 and the position was filled.
- In 2009, internal coordination in the SFPUC for the SF SWMP implementation continued to be managed through meetings of the Wastewater Roundtable and other as-needed meetings on implementing specific programs.
- With respect to interagency coordination, the SFPUC focused on improving interagency contacts to ensure good housekeeping for municipal operations, monitoring progress in planning for future MS4 Areas (such as Hunters Point Shipyard/Candlestick Point, Treasure Island and Mission Bay), as well as collaborating on Low Impact Development pilot projects with the Mayor's Office and other City agencies.
- SFPUC and Port staff continued to work closely on implementing programs – the focus on 2009 was on completion and adoption of guidelines and an ordinance related to Post-Construction Stormwater Management.
- Full details are provided in Section 2 of this report.

Public Education

- During 2009, the SFPUC continued to pursue its ongoing public education strategy that includes: maintaining a presence and distributing publications and outreach materials at community events, providing pollution prevention programs in San Francisco schools, carrying out target public education campaigns, conducting tours of the wastewater treatment plants, maintaining program materials and information online, and evaluating the impact that the program has had on the public's understanding of its programs and key messages.

- Some specific achievements for 2009 include:
  - A total of 67 classroom presentations on water pollution prevention were made at 44 public and private schools in San Francisco, reaching approximately 1,900 students (primarily 5th graders);
  - Over 30,000 copies of the San Francisco Gardening Calendar were produced and distributed – the calendar highlights photos of plants, flowers, and gardens grown in San Francisco with less-toxic techniques, also referred to as Integrated Pest Management (IPM);
  - The SFPUC continued to fun local implementation of the Our Water Our World program, which entails enlisting local stores (such as hardware and gardening stores) to participate in distributing information and fact sheets on less-toxic gardening alternatives and in providing less-toxic product alternatives for their customers.
  - The SFPUC launched a blog site (http://sfsewers.blogspot.com) which posted many articles related to stormwater issues.

- Full details on the Public Education minimum control measures are provided in Section 3 of this report.

Public Involvement/Participation

- In 2009, the SFPUC's activities relative to compliance with the Public Involvement/Participation minimum Control measure centered on the following:
  - Continued posting on SFPUC website of updates on implementation of SF SWMP programs;
  - Providing related updates at Citizen's Advisory Committee meetings;
  - Holding meetings with targeted interested parties (such on management of San Francisco's largest MS4 Area, Lake Merced); and
  - Involving the community in the development and adoption of Post-Construction Controls.

- Full details on the Public Involvement/Participation minimum control measures are provided in Section 4 of this report.

Illicit Discharge Detection and Elimination

- A total of 601 Service Request calls were received by the CSD in 2009 from the 311 call center. Of these calls, a total of 56 were pertinent to illegal dumping or illicit discharges into storm drains.

- In 2009, SFPUC staff conducted field survey work at each of the current non-Port MS4 areas in San Francisco to look for indications of any illicit discharges and to assess the state of IDDE program elements (such as existence of no dumping signs, no dumping storm drain markers, pet waste stations, and garbage cans).

- The SFPUC also completed a comprehensive re-assessment of all of the MS4 area maps in 2009, with field visits to each location. Locations that had been identified as possible MS4 sites not previously mapped were also investigated. The field work resulted in the following changes to the list of MS4 areas under the SFPUC's Phase II General Permit:
  - Addition of the following locations: Lake McNab (in McLaren Park); India Basin; Mountain Lake; and South Beach Harbor.
  - Reclassifying the following as not being MS4 areas: A catch basin on 25th Avenue and structures at the ends of 16th/18th Avenue (Lobos Creek area).
- Full details on the Illicit Discharge Detection and Elimination minimum control measures are provided in Section 5 of this report.

Construction Site Stormwater Runoff Control

- Due to the fact that current MS4 areas are all park and/or open spaces that are not being impacted by construction activities, the SFPUC focused its resources in 2009 on the following program areas:
  - Inspecting construction sites in MS4 areas not currently under the City's jurisdiction, but which will eventually become City property (ex: the Mission Bay redevelopment area) – these sites have filed for a NPDES General Construction Permit with the State and CSD staff acts as the local enforcement agency to ensure the required SWPPP is being properly implemented;
  - Responding to any reports or complaints regarding runoff from construction sites;
  - Reviewing existing construction site inspection procedures and training materials in preparation for introduction of the proposed ordinance on Stormwater Discharge Controls for Construction Sites; and
  - Establishing key contacts in the City's Planning Department and Department of Building Inspection in order to facilitate the process of adopting and implementing the proposed ordinance.
- In 2009, a total of 28 construction site inspections were completed by CSD staff. Of these inspections, 8 were in MS4 areas which in the future will fall under the City's jurisdiction:
  - Hunter's Point Parcel A Redevelopment Project (US Navy) – 4 inspections
  - Mission Bay Redevelopment Project (Catellus Development Corp) – 4 inspections
- Full details on the Construction Site Stormwater Runoff Control minimum control measures are provided in Section 6 of this report.

Post-Construction Controls in New and Redevelopment

- A key achievement in 2009 was completion of the *San Francisco Stormwater Design Guidelines (Guidelines)*, which provide developers in both MS4 and combined sewer areas with a wide suite of design solutions that will enable them to achieve compliance with stormwater management requirements. Examples include rainwater harvesting, rain gardens, green roofs, and permeable paving.
- Also completed and presented to the SFPUC Commission was a San Francisco Stormwater Ordinance, which will ensure that the *Guidelines* are successfully implemented; SFPUC and

Port staff collaborated on a Stormwater Ordinance, which will become codified in the San Francisco Public Works Code.

- Staff continued to be engaged in ensuring stormwater controls were being integrated into development projects under the already-existing City's Green Building Ordinance (which was passed in November 2008, with implementation beginning in 2009).
- In 2009, there were no new or redevelopment projects constructed in current MS4 areas, however, significant planning for future development areas was taking place. SFPUC staff tracked and commented on planning discussions relative to current MS4 Areas (such as Lake Merced) and MS4 areas which in the future will be under the City's jurisdiction (such as Mission Bay, Treasure Island, Hunters Point Shipyard and the Candlestick Point area).
- SFPUC staff also continued to provide technical assistance to other City agencies to help them implement projects that integrated stormwater management in their design and development; these projects were diverse and included new libraries, traffic calming efforts, pedestrian realm improvements, and creation of green schoolyards.
- Post-construction stormwater controls also continued to be integrated into the SFPUC's Sewer System Master Plan. Modeling was done on the effects that Low Impact Design (LID) would have on stormwater flows to the combined sewer system.
- Full details on the Post-Construction Controls in New and Redevelopment minimum control measures are provided in Section 7 of this report.

Pollution Prevention/Good Housekeeping for Municipal Operations

- In 2009, SFPUC staff completed comprehensive site visits to MS4 areas to review current conditions, assess stormwater pollution prevention BMPs ("no dumping" curb markers, pet waste stations) and to update the sewer base map with geo-coding of all MS4 storm drains.
- *Integrated Pest Management for Municipal Agencies*: SF Environment continued to implement San Francisco's Integrated Pest Management (IPM) Ordinance and manages the Municipal IPM Program for the City and County of San Francisco, which includes: annual IPM trainings for municipal employees; semi-annual IPM conferences; annually reviews and updates of the City's Reduced Risk Pesticides List; support of reduced risk pesticide product testing; and convening of a monthly IPM Technical Advisory Committee composed of the City's major pesticide users.
  - The most recent summary (2006-2007) shows that since 1999 there has been an 83% reduction of Tier I pesticides and a 53% reduction of Tier II pesticides.
  - In 2009, SFE organized two pesticide application safety/IPM trainings, plus two trainings in the use of propane torches (a.k.a. 'weed flamers') as alternatives to herbicides. Over 300 City staff attended the trainings.
- *Street Sweeping, Dumped Debris Cleanup, and Catch Basin Cleaning:* SFPUC continued to track these activities as they contribute significantly to reducing stormwater runoff pollution.
- Full details on the Pollution Prevention/Good Housekeeping for Municipal Operation minimum control measures are provided in Section 8 of this report.

1.2 SWMP Annual Report Requirements

Based on submittal of an application package and the San Francisco Storm Water Management Plan, the SFPUC received coverage under the State Water Resources Control Board's General Permit for Storm Water Discharges for Small MS4s, Water Quality Order No. 2003-0005-DWQ (generally referred to as the "Phase II General Permit").[2] This General Permit sets forth requirements for submittal of annual reports in the following sections:

- Phase II General Permit Fact Sheet, Page 11 (1st paragraph)
- Permit/Waste Discharge Requirements, Provision F.1, Reporting[3] (pp. 13 and 14)
- Permit/Waste Discharge Requirements, Provision H.11, Signatory Requirements (p. 17)
- Permit/Waste Discharge Requirements, Provision H.12, Certification (p. 17)

This annual report is submitted in compliance with the above listed sections of the Phase II General Permit.

1.2.a Report Organization

This annual report has been organized to make it easy to compare with the current SF SWMP document. Table 2 below shows how sections of this annual report correlate to sections of the SF SWMP.

Table 2: Annual Report Organization and Related SWMP Sections

Annual Report Section	Relevant Section of SF SWMP	Relevant Section of the NPDES General Permit
Section 2: Program Management (Organization/Administration)	Section 3.1	N/A
Section 3: Public Education and Outreach	Section 3.4.1	D.2.a
Section 4: Public Involvement/Participation	Section 3.4.2	D.2.b
Section 5: Illicit Discharge Detection and Elimination	Section 3.4.3	D.2.c
Section 6: Construction Site Stormwater Runoff Control	Section 3.4.4	D.2.d
Section 7: Post-Construction Stormwater Management in New & Re- Development	Section 3.4.5	D.2.e
Section 8: Pollution Prevention / Good Housekeeping for Municipal Operations	Section 3.4.6	D.2.f

[2] Refer to Appendix A for a copy of the August 2004 letter from the RWQCB acknowledging receipt of the application and acceptance of the San Francisco Storm Water Management Plan submitted by the SFPUC.

[3] Note that the SFPUC received approval from the RWQCB for an alternate Annual Report (end of March annually). The SFPUC requested this variance because it enables better reporting for two reasons: a) City programs gather data on an annual calendar basis, and 2) the SFPUC submits an annual report at the end of February every year summarizing water pollution prevention programs implemented in compliance with its wastewater treatment plant permits and many of these programs overlap with programs being implemented to comply with the Phase II General Permit.

1.3 Proposed SF SWMP Amendments:

The SFPUC recommends the following amendments be made to the Section 2 of the San Francisco Stormwater Management Plan:

- Update the MS4 areas map, area descriptions and summary table.

SECTION 2: PROGRAM ADMINISTRATION AND MANAGEMENT

2.1 Introduction

This section summarizes how the San Francisco Public Utilities Commission (SFPUC) has complied with the Program Management deliverables stated in Section 3.1 of the San Francisco Stormwater Management Plan (SF SWMP). Table 8 (SWMP Organization/Administration Tasks Status) provides a status summary for SWMP administrative tasks.

2.2 Organization / Staff

The SFPUC is the lead agency in the development and implementation of the San Francisco Stormwater Management Program for the non-Port MS4 areas of the City. Within the SFPUC, the Wastewater Enterprise (WWE) Collection Systems Division (CSD) is responsible for the Pretreatment Program, the Water Pollution Prevention Program (wastewater and stormwater), as well as sewer and catch basin cleaning, and flood and spill response.

Compliance oversight with the Phase II General Permit and implementation of the SF SWMP measures is managed by the Water Pollution Prevention Program Manager, Karen Hurst. The SFPUC currently employs ten staff (a total of 6.0 full time equivalents FTE) who work on stormwater issues relative to compliance with the Phase II General Permit.

Figure 2 (San Francisco Public Utilities Commission Stormwater Management Staff) identifies these positions and the approximate portion of their work time spent on stormwater management issues (note that this figure does not reflect actual reporting structure within the SFPUC organization). Table 3 (Staff Areas of Responsibility Relative to SF SWMP Implementation) identifies key areas of responsibility for each position relative to implementation of the SF SWMP.

Figure 2: San Francisco Public Utilities Commission Stormwater Management Staff

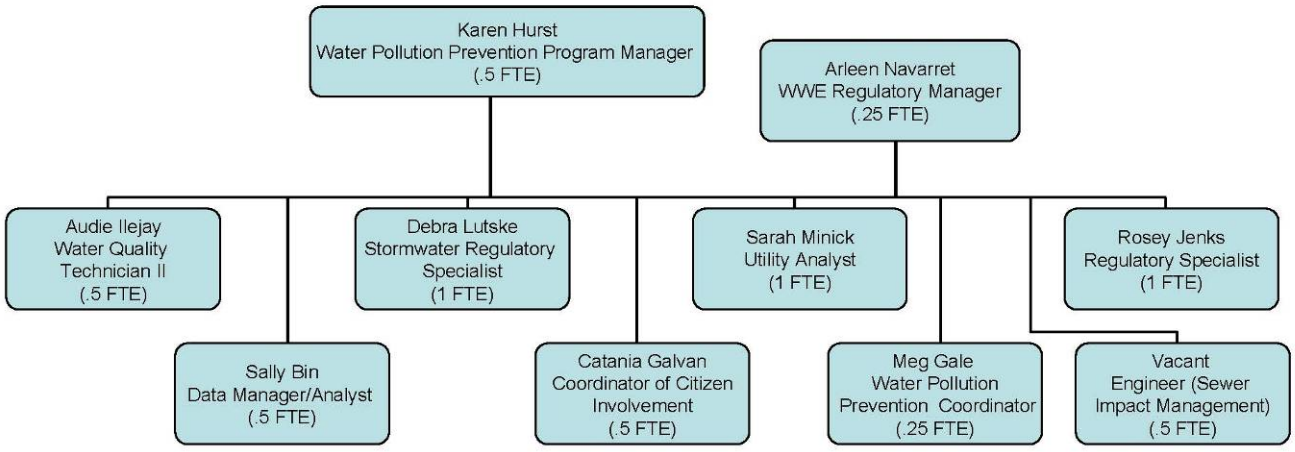


Table 3: Staff Areas of Responsibility Relative to SF SWMP Implementation

Name	Position	Responsibly/Focus
Karen Hurst	Water Pollution Prevention Program Manager	Manage staff responsible for implementation of SWMP programs and minimum control measures.
Debra Lutske	Stormwater Regulatory Specialist	Coordinate implementation of SWMP programs and implement key elements of minimum control measures.
Arleen Navarette	WWE Regulatory Manager	Oversee and assist staff of SFPUC Wastewater Enterprise on compliance with all regulatory requirements and permits.
Rosey Jenks	Regulatory Specialist	Lead staff person on post-construction stormwater controls minimum control measures and broader SFPUC Urban Watershed Management Program.
Sarah Minick	Utility Analyst	Key staff person on post-construction stormwater controls minimum control measures and broader SFPUC Urban Watershed Management Program.
Sally Bin	Data Manager/Analyst	Support and maintenance of key databases (ex: those containing inspection reports on illicit discharges and construction site inspections).
Audie Ilejay	Water Quality Technician	Carry out key stormwater related field investigations and inspections (illicit discharges; construction sites).
Catania Galvan	Coordinator of Citizen Involvement	Assist with public and student education relative to stormwater pollution prevention.
Meg Gale	Water Pollution Prevention Coordinator	Assist with public outreach efforts relative to stormwater pollution prevention.
Vacant	Engineer (Sewer Impact Management)	Improve processes and interagency coordination relative to SFPUC's involvement in new/redevelopment project review.

A key achievement in 2009 was that the Stormwater Regulatory Specialist position that had been vacant for over a year and a half due to hiring freezes was released for hiring. Interviews were held in early 2010 and the position was filled.

2.3 SFPUC Management Committee Meetings

Wastewater Roundtable

In 2009, internal coordination for the SF SWMP implementation continued to be managed through meetings of the Wastewater Roundtable. A list of 2009 Wastewater Roundtable meeting dates is provided in Table 4 (SWMP Coordination/Wastewater Roundtable Meetings). The purpose of the Wastewater Roundtable is to provide a forum for SFPUC staff to present information and to encourage discussions on topics germane to the Enterprise. A primary focus is to ensure permit compliance by addressing and preparing for upcoming requirements and disseminating information on areas of concern that may lead to non-compliance.

Table 4: SWMP Coordination/Wastewater Roundtable Meetings (2009)

Meetings Held	
January 6	July 7
March 3	September 1
April 7	November 3
June 2	

As an example, an agenda from the 7/7/09 meeting is provided in Appendix B (MS4 Area/Phase II General Permit issues were discussed, as well as proposed Stormwater Design Guidelines).

Stormwater issues are a standing agenda item for each meeting and are discussed when applicable (ex: updates on progress with SWMP work plan tasks; discussion around implementation needs or coordination issues). All divisions of the Wastewater Enterprise are represented as well as the Communications Department, and the City Attorney's office. The Roundtable also invites guest speakers to address various topics related to stormwater and other wastewater issues.
Table 5 lists SFPUC divisions and individuals who are involved in the SWMP development and implementation.

Table 5: SWMP Development and Implementation Division Representatives

SFPUC Divisions	Contact Person	Focus Area
Collection System Division	Lewis Harrison	Division Manager
Stormwater Program	Karen Hurst Debra Lutske	SWMP Management Stormwater Regulatory Specialist
Wastewater Planning & Regulatory Compliance	Arleen Navarret Rosey Jencks Sarah Minick	WWE Regulatory Compliance Urban Watershed Management Program Urban Watershed Management Program
Sewer System Master Plan	Jon Loiacano	Wastewater/Stormwater Master Planning
City Attorney's Office	John Roddy	City Attorney (Legal/Regulatory oversight)
Communications	Tyrone Jue	Media/Education

In addition to the regular Wastewater Roundtable meetings, SFPUC staff from various divisions continued to meet and coordinate as needed on implementing specific SWMP programs and minimum control measures.

2.4 Interagency Coordination

The SFPUC also works with other City agencies impacted by the SWMP and/or involved in implementation of SWMP programs. Key efforts in 2009 consisted of managing ongoing interagency contacts to ensure good housekeeping for municipal operations, monitoring progress in planning for future MS4 Areas (such as Hunters Point Shipyard/Candlestick Point, Treasure Island and Mission Bay), as well as collaborating on Low Impact Development pilot projects with the Mayor's Office and other City agencies.

2.4.a Ongoing Collaborative Efforts

The SFPUC continued to coordinate on Municipal Good Housekeeping measures such as street cleaning, catch basin cleaning, and construction site controls with several key groups within the San Francisco Department of Public Works (DPW) – specifically, the Bureau of Street Use and Mapping (BSM), Bureau of Street Environmental Services (BSES), and Bureau of Engineering (BOE) Hydraulics.

Other projects that required significant interagency collaboration were the following: a) SFPUC support and funding of environmental education presentations made by the San Francisco Department of the Environment (SFE) to classrooms in San Francisco; and b) design and implementation of Low Impact Design (LID) pilot projects with Recreation and Park Department (RPD) and the Department of Public Works. Additionally, since several of the MS4 areas are located in parks, the SFPUC regularly works with the RPD on their management and maintenance of these locations.

Low Impact Design pilot projects have also increased the number of SFPUC's partners for collaboration that include the Mayor's Office of Greening, the San Francisco Redevelopment Agency, the Mayor's Office of Economic Development (MOED), the Department of Parking and Traffic (DPT), the Department of City Planning, and various community groups.

Table 6 lists the Interdepartmental SWMP Coordination Meetings in 2009. This table also includes information on how the SFPUC has communicated and coordinated with these other City departments regarding the SWMP and implementation of related activities.

Table 6: Inter-Agency SWMP Coordination Summary Table (2009)

TOPIC	DATE	DETAILS
Better Streets Master Plan	1/7/09, 1/14/09, 1/16/09, 1/20/09, 1/21/09, 1/29/09, 1/30/09, 2/5/09, 2/24/09, 3/13/09, 3/19/09, 4/14/09, 4/20/09, 5/1/09, 5/19/09, 7/1/09, 7/16/09, 7/30/09, 8/19/09, 8/21/09, 8/26/09, 9/16/09, 9/23/09, 10/13/09, 10/20/09, 10/26/09, 10/28/09, 11/5/09, 11/18/09, 11/25/09,12/2/09, 12/16/09, 12/23/09	This is an interagency project to analyze and re-write the city's street design guidelines to improve pedestrian safety aesthetics and stormwater management. The draft Plan was posted for review in 2009, and staff worked throughout the year to incorporate edits from the community, and the City Agencies.
California Pacific Medical Center	2/27/09, 4/02/09, 4/2/09, 5/8/09, 6/9/09, 6/11/09, 8/27/09, 12/1/09	A multi-campus retrofit attempting to achieve LEED Gold. SFPUC staff provides technical assistance and investigate the potential for a sustainable financing pilot.
Candlestick Park Parking Lot - Municipal Good Housekeeping	5/20/09	Meeting with Recreation and Park Department site manager for the Candlestick Park Parking Lot (Mike Gay) regarding concerns about housekeeping of parking lot relative to stormwater discharge from lot into Windsurfer Cove. Subsequent calls and correspondence led to changes to onsite practices.
Cesar Chavez LID Project	1/9/09, 2/24/09, 3/25/09, 5/8/09, 8/19/09	These meetings created a pilot project to integrate capital projects between city agencies and to incorporate stormwater management features within the streetscape.
General Hospital Rebuild	12/15/09	A hospital retrofit attempting to achieve LEED Gold. SFPUC staff has been providing technical assistance.
Glen Park Neighborhood Plan	3/30/09, 4/21/09, 5/4/09, 7/7/09	Meetings were to assist the Planning Department in their efforts to develop a neighborhood that incorporates stormwater management. SFPUC hosted a student thesis project to identify innovative stormwater and creek daylighting proposals for the plan. Included was a visual preference survey for neighborhood residents to identify their preferred design for creek daylighting.
Green Building Ordinance and Stormwater Requirements	3/17/09, 7/8/09, 8/12/09	Meetings to integrate the Green Building Ordinance, the Stormwater Ordinance and the Municipal Green Building Ordinances to ensure inclusion of appropriate stormwater performance measures and project review procedures.
Mission Public Realm Plan	2/3/09, 3/3/09, 3/31/09, 5/12/09	Meetings were to assist Planning Department efforts to develop a public realm plan that incorporates stormwater. SFPUC hosted a student thesis project to create a handbook for the Mission entitled "Water Sensitive Strategies for Mission Residents."
Municipal Operations at MS4 Locations - (Various)	October, November and December 2009 (also Jan/Feb 2010 meetings)	In order to ensure that good housekeeping practices and BMPs were in place, CSD staff met with staff of various City agencies responsible for daily operations and maintenance at MS4 locations – such as Recreation and

		Parks Division staff responsible for Lake locations in San Francisco. See Section 8 for more details.
Newcomb Model Block project	12/1/09	This group has been meeting to develop an LID pilot that a maintenance and monitoring pilot for the 700 Block of Newcomb Avenue.
Non Potable Water Policy work (Rainwater Harvesting MOU, manual and local graywater standards and graywater manual)	3/30/09, 4/17/09, 4/24/09, 4/27/09, 5/4/09, 5/13/09, 6/15/09,7/6/09, 7/16/09, 9/14/09, 9/17/09, 10/14/09, 12/4/09	In 2009, staff worked on the development of a rainwater harvesting MOU between the Department of Building Inspection and the Department of Public health allowing the use of captured rainwater for irrigation and toilet flushing. In addition, staff commissioned a rainwater harvesting manual and graywater manual to assist developers in complying with local requirements.
Ortega Public Library	4/23/09	This is an effort between SFPUC and the Department of Public Works and the Public Library to integrate stormwater features within the design of a new public library
Schlage Lock LEED Neighborhood Development Sustainability Plan	2/3/2009	A LEED ND pilot project for Shlage Lock. In partnership with the SF Redevelopment Agency, SF Department of the Environment and the SF Planning Department.
Sustainable Civic Center	1/5/09, 2/19/09, 3/26/09, 3/27/09, 7/9/09	This is a multi-agency project that is working towards creating a sustainable district that will incorporate, among various sustainability features, a green stormwater infrastructure pilot and create a long-term plan for stormwater harvesting and water efficiency.
Transbay Terminal	1/14/09	A multi-agency review process for the Transbay Terminal development.

2.4.b Coordination with Related Mayor's Office Efforts

In 2009, efforts continued with Mayor Newsom's Better Streets Plan (BSP). The Better Streets Plan will carry out the intent of San Francisco's Better Streets Policy, adopted by the Board of Supervisors on February 6, 2006. The SFPUC participated in this effort by continuing to encourage the use of landscaping and low impact design for stormwater management and by helping to increase the awareness of the impact of trees on sewers.

The Better Streets Plan will create a unified set of standards, guidelines, and implementation strategies to govern how the City plans for, designs, builds, and maintains its pedestrian environment. The BSP process brings together staff of the San Francisco Planning Department, the SFPUC, the San Francisco Municipal Transportation Authority, the Department of Parking and Traffic, the Department of Public Work and the Mayor's Office on Disability, to comprehensively plan for streets. The Plan will seek to balance the needs of all street users, with a particular focus on the pedestrian environment and how streets can be used as public space. The BSP will reflect the understanding that the pedestrian environment is about much more than just transportation – that streets serve a multitude of social, recreational and ecological needs that must be considered when deciding on the most appropriate design.

The result of the BSP will be a set of unified standards, guidelines, and will present a set of design standards that will guide streetscape design in San Francisco. These standards will improve the overall urban design quality, aesthetic character, and ecological function of San Francisco's streets, while maintaining safe and efficient use of the streets by all modes of transportation. The BSP will include best practices for San Francisco, a street typology framework, and a Streetscape Design Toolkit to guide the design of City streets (ex: guidelines on materials, dimensions, plantings,

drainage features, and street furnishing such as benches and lighting). The BSP will also draft code revisions necessary to achieve the quality of streets envisioned. A draft of the Better Streets Plan was completed in June 2008 and was posted on the projected website.

Efforts in 2009 by the SFPUC staff team included providing funds for a maintenance cost model for stormwater infrastructure located within the right-of-way, and an intuitional analysis investigating the City's current methods of delivering street improvements along with recommendations for reform. Staff continued to participate in working groups to address technical issues that were identified by City staff and the public. Some of the topics covered included street-side bioretention designs and pervious paving. This group has been convened by the Mayor's Office of Greening and is working out technical and procedural solutions to the challenges. The BSP will be updated to reflect these new technical standards. More information on this effort can be found at http://www.sfbetterstreets.org/.

2.4.c Future MS4 Areas

Several large redevelopment areas - such as Treasure Island, Hunters Point Shipyard/Candlestick Point Development, and Mission Bay - are not yet under the jurisdiction of the City and County of San Francisco, but have separated storm sewer systems. In anticipation of the City's acceptance of these properties, the SFPUC has been proactive in working with responsible key parties during the design and development process, such as the San Francisco Redevelopment Agency (SFRA), the Hunter's Point Task Force, and the Mayors Office, in order to provide guidance on stormwater design issues. Refer to Section 7 (Post Construction Controls) more details on these efforts.

2.4.d Coordination with the Port of San Francisco

Beginning in 2002, the SFPUC and Port staff has met frequently to discuss SWMP program development and implementation of minimum control measures. SFPUC and Port staff continued to meet and communication regularly this year to ensure that the agreements set forth in the formal MOU on Port and SFPUC SWMP Coordination are carried out and that the SWMP programs of each agency are coordinated, and their efforts maximized, to the extent feasible.

Table 7 lists the meetings and activities between the SFPUC and the Port in 2009 and the focus of these coordination efforts for the year.

Table 7: Coordination with the Port of San Francisco (2009)

Topic	Date	Details
San Francisco Stormwater Design Guidelines: Content, outreach, project management, and coordination.	Routine weekly meetings or conference calls	2009 meetings focused on completion of the *San Francisco Stormwater Design Guidelines* and development of the Stormwater Management Ordinance.

Although coordination with the Port on implementation of the Port SWMP and the SFPUC SWMP has been successful and ongoing for years, the SFPUC recognizes that the existing SFPUC-PORT MOU on SWMP coordination needs to be renewed. The 2004 MOU was set to extend through the term of the Phase II General Permit (March 2008). The SFPUC and PORT were anticipating the issuance of a new Phase II General Permit in 2009 and thus were waiting to create a new MOU. Given that a new Phase II General Permit has not yet been issued as of the end of 2009, the SFPUC and Port will revise or renew their MOU in 2010 as an interim measure. This has been added as an Action Item to the Table 8 (SWMP Organization/Administrative Tasks).

2.5 Permit Management Activities

2.5.a Approval Date of Current SWMP and Submittal of Annual Reports

The January 2004 San Francisco SWMP (submitted in December 2003) was approved by the California Regional Water Quality Control Board (RWQCB) in August 2004 (refer to Appendix A for related documentation). SFPUC has submitted SWMP Annual Reports to the RWQCB every year as required by the Phase II General Permit, beginning in March 2005 (for progress on SWMP program implementation in calendar year 2004) and then every year subsequently as follows:[4]

- 2004 Annual Report (submitted March 1, 2005)
- 2005 Annual Report (submitted March 1, 2006)
- 2006 Annual Report (submitted March 15, 2007)
- 2007 Annual Report (submitted March 31, 2008)
- 2008 Annual Report (submitted March 30, 2009)

Although the first 5-year term of the Phase II Statewide General Permit expired in 2008, pursuant to the General Permit (*Section H.21, Continuation of Expired Permit*), the General Permit continues in force and in effect until a new one is issued or the State Water Board rescinds it. Accordingly, the SFPUC continues to implement the SF SWMP and submit required annual fees and reports under the initial General Permit.

2.5.b Continuous Improvement Measures

In accordance with Section 3.1.2 of the SF SWMP: "Each year, SFPUC will review its SWMP for necessary changes to ensure that it remains up-to-date. Proposed changes will be clearly documented and circulated to identified stakeholders, and Plan revisions will be posted on the SFPUC website. In addition, each year SFPUC will develop an annual work plan that describes in more detail the tasks to be completed in the fiscal year. The work plan will describe tasks, responsible agencies, schedules, and expected results."

In 2009, no changes to the SF SWMP document were made. Although no changes were made to the SWMP, the SFPUC has in place procedures to be followed should changes or revisions to the SF SWMP be needed. When applicable, per conversations with the RWQCB staff, the SFPUC will continue to carry out changes and revisions to the SF SWMP and its work plan as follows:

a) The SFPUC will submit a draft revised SWMP with proposed updates and revisions within a month of receiving comments from the RWQCB on the Annual Report;

b) Proposed updates and revisions will be based on SWMP updates and revisions suggested in the Annual Report and on input received from the RWQCB on the Annual Report;

c) The draft revised SWMP will be circulated to identified stakeholders at the time that it is submitted to the RWQCB for review; and

d) The SFPUC will jointly address both State and stakeholder comments and then submit a final proposed revised SWMP for RWQCB approval.

[4] Note: In accordance with Section F of the General Permit (Reporting Requirements and Monitoring), the SFPUC requested and received permission from the RWQCB to submit its SWMP Annual Reports in March of each calendar year (rather than September 15th).

2.5.c Improvements in Record Keeping and Reporting

In accordance with Section 3.1.3 of the SF SWMP, CSD staff has been working with, and with continue to work with other SFPUC departments, other City agencies, and staff of the Port of San Francisco to develop standardized record keeping and reporting mechanisms that will facilitate internal stormwater management program tracking and evaluation, as well as external reporting to the Regional Board.

Beginning in 2006, CSD began the use of handheld GPS systems linked to GIS which allows for mapping and detailed data collection concerning the status of the inspection. This administrative improvement, which has been expanded since first initiated, allows the program manager to map where progress has been made and to prioritize works for all of the six minimum controls.

In 2009, CSD staff continued to improve internal record keeping related to stormwater management issues (such as complaints, inspections, etc). Highlights for the year included:

- The SFPUC CSD staff continued to use handheld GPS units to upload data to the Enterprise GIS in ongoing efforts to update sewer system maps and carry out detailed data collection on the location of catch basins and inspection points. In 2009, staff continued field verification of catch basin and curb marker locations and data QA/QC for the Sewer Map database. At this point, the SFPUC can identify on GIS maps which MS4 areas and specific MS4 storm drains have the No Dumping curb markers installed. A few MS4 areas are not able to have curb markers installed because they have drains which cannot be marked (i.e., no curb). In 2010, the SFPUC will revisit MS4 areas that were found to be lacking No Dumping curb markers during the field visits carried out in 2009.
- The City and County of San Francisco 311 Call Center, instituted in 2007, continued to be promoted as the main reporting line for all citizen complaints, including stormwater violations and illegal dumping reports. Citizen complaints are received at a central location and then routed to the responding agency. SFPUC staff responded to a total of 601 Service Requests with potential impacts to MS4 storm drains and combined sewer drains (spill reports, illegal dumping, etc). Of these, 31 were clearly illicit discharge incidents (illegal dumping, spill reports, construction site related issues or grease related). This is down from 113 in 2008. The balance of the 601 service requests (570) were related to the following: a) 11 were grease complaints; b) 8 were construction-related complaints; c) 6 were for spills; d) 440 were to the StormWatch Inspections (i.e., regarding flooded or slow draining catch basins made during or after a storm event caused by blockage of the inlet grates by leaves, trash, litter and other debris); and e) 88 were not CSD issues and were routed to appropriate City agencies. SFPUC's historical "No Dumping" call-in line (695-2020) has been "rolled over" to the 311 Call Center and therefore all calls are handled and processed by 311 staff. Additional information on complaint reporting and response is provided in subsequent sections of this report
- CSD staff continues to use the internal PIMS (Pretreatment Information Management System) to log and track inspections and compliance issues. The online Incident Request Form is completed by inspectors whenever an investigation takes place, such as a follow up on a report of illicit discharging. Populating the online module of the form, from the start of an investigation up until resolution, allows the CSD to track open requests, response times, the history of complaints, and location patterns because complaints are located using GIS mapping.

2.5.d Measurable Goals and Process Improvement

The SFPUC selects measurable goals that are appropriate for the activity being measured. Goals may be for completion of a simple one-time activity or of a large objective, or they may measure level of effort or level of effectiveness. For some activities, such as planning and development, simple completion goals are most appropriate. For other activities, level of effort and level of effectiveness may be more appropriate.

Refinement of Measureable Goals: The SFPUC is committed to evaluating and refining its pollution prevention efforts. With this continuum in mind, and as stated in the SF SWMP, the SFPUC has instituted an adaptive management process for reviewing and refining its measurable goals. For each Minimum Control Measure, this will be achieved through a "Refinement of Measurable Goals" task. The task involves reviewing goals for each Control Measure annually and with information gained (in program planning, working groups, work plan development, and implementation), revising and refining goals (as needed) to make them more measurable/numeric and effective.

Staff Training: Another ongoing process improvement initiative of the SFPUC is for staff to attend trainings, as needed, to improve their knowledge of MS4 area stormwater issues and to have the skills necessary for the SFPUC to be successful in implementing its SF SWMP-related programs. A listing of such trainings attended by staff in 2009 is provided in Appendix B.

2.5.e Legal Authority

In the SF SWMP (Section 3.2), the SFPUC identified that legal authority would be an important aspect of the following three minimum control measures:

- Illicit Discharge Detection and Elimination (D.2.c.3)
- Construction Site Stormwater Runoff Control (D.2.d.1)
- Post-Construction Stormwater Management in New Development & Redevelopment (D.2.e.3)

In 2009, the SFPUC continued to pursue changes to its current authority, where needed, to oversee the three minimum control measures above to ensure that the City has the appropriate authorities, prohibitions, requirements, and enforcement procedures necessary to provide sufficient legal authority to the City's Phase II General Permit compliance program.

Progress of related work is detailed in the following sections of this Annual Report:

- Illicit Discharge Detection and Elimination -- Section 5.0
- Construction Site Stormwater Runoff Control -- Section 6.0
- Post-Construction Stormwater Management in New Development & Redevelopment-- Section 7.0

2.6 Measurable Tasks Status Report

The summary table below presents status information on the SWMP organization and administration tasks set forth in the SF SWMP (as summarized in SWMP Appendix F: Measurable Goals Summary Table).

Table 8: SWMP Organization/Administration Tasks

TASK NUMBER	STATUS & DOCUMENTATION
ADMIN TASK #1: Create a Memorandum of Understanding (MOU) with the Port for interdepartmental coordination on stormwater management issues.	**STATUS:** COMPLETED, ONGOING and ACTION NEEDED **Completed**: MOU adopted on 9/18/04. See Appendix A for a copy of MOU. **Ongoing:** SFPUC and Port working within the context of the MOU is an ongoing task) **Action Needed in 2010**: ➢ MOU needs to be renewed. The MOU was set to extend through the term of the Phase II General Permit (March 2008). The SFPUC and PORT were anticipating the issuance of a new Phase II General Permit in 2009 and thus were waiting to create a new MOU. Given that a new Phase II General Permit has not yet been issued as of the end of 2009, the SFPUC and Port will revise or renew their MOU in 2010 as an interim measure.
ADMIN TASK #2: Continue to work with the Port to improve the narrative and format consistency between the two agencies SWMPs and Annual Reports.	**STATUS:** COMPLETED and ONGOING The SFPUC and Port have taken the following steps to achieve this goal: • Weekly meetings or conference calls have been held on developing guidelines for stormwater BMPs in MS4 areas. • For more details on interdepartmental coordination meetings see Admin Task #3 below.

ADMIN TASK #3: Establish a management committee across City departments that are significantly affected by the Phase II General Permit programs or which have a vital role in its success. The management committee will address the major elements of the SWMP as well as geographic area-specific or element-specific work groups as necessary.	**STATUS:** COMPLETED, ONGOING and ACTION NEEDED ***Approach Modification from initial SWMP proposal:*** • In 2008, the SFPUC carried out communication and coordination on SWMP issues key in-City stakeholders only as needed. • A formal management committee/advisory committee structure has not yet been established because there was so little activity in MS4 areas it was determined that it was more reasonable to meet with individual stakeholders/departments as needed for the future MS4 Areas (Hunter Point Shipyard, Mission Bay and Treasure Island), the LID pilot projects and the ongoing efforts to manage the existing MS4 areas (such as Lake Merced, Golden Gate Park lakes, etc). ***Coordination with Other City Departments:*** SFPUC carried out communication and coordination on SWMP issues with other key City Departments through many meetings with these stakeholders on specific issues in order to be able to implement specific SWMP goals. Examples include: • Meetings with Department of Public Works and the Port of San Francisco to determine a coordinated approach for development of post-construction stormwater management design measures. • Meetings with the Mayor's Office of Greening to discuss the Better Streets Management Plan. • Meetings with City departments responsible for daily maintenance and management of onsite good housekeeping practices at MS4 locations. ***Documentation:*** • See Table 6 (Interdepartmental Stormwater Management Coordination Meetings Summary Table) and Table 7 (Coordination with the Port of San Francisco) for a listing of all such coordination meetings. **Action Needed in 2010**: ➢ Staff will reassess whether SFPUC should create a Phase II General Permit management committee as initially envisioned or whether it is more appropriate to continue the approach of working only through existing meetings and groups.

ADMIN TASK #4: Develop roles and responsibilities, communication pathways, and decision-making procedures for the management committee and specific work groups.	**STATUS:** ONGOING and ACTION NEEDED • For the reasons detailed in Admin Task #3 above, the SFPUC has delayed establishment of a formal interdepartmental SWMP management group/advisory committee. **Action Needed in 2010**: ➢ Formally document roles and responsibilities, communication pathways, and decision-making procedures for the implementation of 6 Minimum Control Measures in the SF SWMP. This should reflect the roles of individual staff positions and groups or committees routinely involved in SWMP program implementation. Documentation should reflect whether a formal Phase II Management Committee should be established once large redevelopment areas with MS4s become City property, and or if the SFPUC will continue to coordinate and implement SF SWMP programs through existing committees and groups.
ADMIN TASK #5: Implement the planned activities for each minimum control measure.	**STATUS:** COMPLETED and ONGOING • The initial planned activities for each minimum control measure are summarized in Appendix F (Measurable Goals Summary Table) of the SFPUC January 2004 SWMP. • Refer to the Section 3 through Section 8 this Annual Report for updates on the implementation status of each goal set forth in the SF SWMP.
ADMIN TASK #6: Join the Bay Area Stormwater Management Agencies Association (BASMAA)	**STATUS:** COMPLETED & ONGOING • The SFPUC joined the Bay Area Stormwater Management Agencies Association (BASMAA) in 2005 and attends agency meetings as appropriate. • The SFPUC is also a member of CASQA (California Stormwater Quality Association).

2.7 Proposed SWMP Amendments:

The SFPUC recommends the following amendments be made to Section 3 of the SF SWMP:

- Update the Program Management information (Section 3.1) to reflect current staffing and status of related efforts.
- Update the Section 3.2 (Legal Authority) to reflect the current work status (i.e. work completed in this area).
- Review Section 3.4 (Cover Sheets and Information Sheets) and the Measurable Goals table. Consider providing information in a renewed and easier to follow format now that progress has been made in implementing minimum control measures.

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SECTION 3: PUBLIC EDUCATION AND OUTREACH

3.1 Introduction

During 2009, the SFPUC continued to pursue its ongoing public education strategy that includes: maintaining a presence and distributing publications and outreach materials at community events, providing pollution prevention programs in San Francisco schools, carrying out target public education campaigns, conducting tours of the wastewater treatment plants, maintaining program materials and information online, and evaluating the impact that the program has had on the public's understanding of its programs and key messages.

3.2 Progress on Work Plan Tasks

3.2.a SFPUC Presence at Community Events

The SFPUC communications staff maintains a presence at community events throughout the city such as Chinese New Year, San Francisco City College, Earth Day, San Francisco Zoo Party for the Planet, and Cinco de Mayo, as well as many other neighborhood fairs and community events where staff distributes the printed materials developed by the various enterprises of the utility. At these fairs, CSD staff distributes informational brochures intended to increase the public's awareness of water pollution prevention.

Examples of the materials distributed include copies of the "It guides", which are water pollution prevention guides that demonstrate less-toxic methods for house cleaning, automotive repair, integrated pest management (IPM), do-it-yourself (DIY) remodeling and gardening, and are intended to reduce the amount of pollutants used in homes and businesses. Other informational materials include Our Water Our World (OWOW) fact sheets, other OWOW outreach materials, and 100% biodegradable pet waste bags.

Print materials are translated into the appropriate language groups in the San Francisco's neighborhoods. In 2009, SFPUC was present at about 40 street fairs and other public venues. Refer to Table 9 (SFPUC Public Outreach Events with Water Pollution Prevention Information Distributed) for a list of the events attended and the public information distributed.

3.2.b Community Education

In 2009, staff also participated in community outreach and education through presentations at community and neighborhood group meetings. Presentations covered non-point source pollution and ways to reduce pollution into the receiving water bodies. Refer to Table 10 (Water Pollution Prevention Presentations to Community/Neighborhood Groups) for a list of presentations made at community and neighborhood group meetings.

Table 9: SFPUC Public Outreach Events with Water Pollution Prevention Information Distributed (2009)

Dates	Event
2/7-2/8/09	Chinese New Year - Street Fair
3/14/2009	Arbor Day
3/19/2009	303 Second St. Eco Fair
3/21/2009	Friends of Camp Mather
3/24/2009	Water Conservation Showcase
4/18/2009	SF ZOO Party for the Plant
4/22/2009	City College of SF Earth Day
4/23/2009	50 Fremont Plaza Eco Fair
4/26/2009	Glen Park Festival
5/2/2009	Cinco de Mayo
5/16/2009	Asian Heritage Street Celebration
6/6/2009	Paddle to the Sea
6/20-6/21/09	Salmon Aid
8/1/2009	A Randolph Phillip
8/1-8/2/09	Fremont Festival
8/8-8/9/09	Pistahan
9/6/2009	Sunday Streets - Great Hwy
9/12/2009	San Mateo County Emergency Preparedness Day
9/132009	Portola/San Bruno Ave Festival
9/19/2009	2009 South Beach Park Block Party
9/19/2009	OMI International Family Festival
9/19/2009	Yosemite Chamber of Commerce for the 21st Annual 49er Festival
9/26/2009	SFPUC's Big Blue Bucket
9/27/2009	Russian Hill Neighborhood
9/27/2009	Leland Avenue Street Fair
9/26/2009	14th Annual Sunset Community Festival
9/27/2009	Midtown Terrace Street Fair
10/4/2009	Castro Street Fair Sunday
10/6/2009	SFPUC Earthquake Readiness SE Plant
10/7/2009	SFPUC Earthquake Readiness, Millbrae & Burlingame
10/8/2009	Presidio Teachers Night, Golden Gate Club, Presidio of San Francisco
10/9/2009	SFPUC Earthquake Readiness, CDD Newcomb Ave
10/9/2009	SFPUC Earthquake Readiness, 1155 Market St
10/17/2009	The Big Rumble
10/18/2009	Bernal Heights Festival - Fiesta On The Hill
10/24/2009	Noe Valley Harvest Festival
11/9/2009	District 3 Community Resource Fair

Table 10:
Water Pollution Prevention Presentations to Community/Neighborhood Groups (2009)

Event	Date (2009)	Focus	Attendance	Potential Reach**
Taraval Police Station, Supervisor Carmen Chu, the Sunset Beacon Center and San Francisco Safety Awareness for Everyone (SAFE) police/community meeting in the Chinese language	February 24	Water pollution prevention, water conservation, SFGreaseCycle.	40	100
Retired Employees of the City and County of San Francisco (RECCSF); Irish Cultural Center	March 11	Water Pollution Prevention	150	300
Mercy Housing Marlton Manor Residents	April 11	Water pollution prevention and water conservation	60	200
Monterey Heights Homes Association	April 28	Water pollution prevention	40	80
Temple Baptist Church	June 1	Water pollution prevention	50	100
Math, Science & Career & Technical Education Conference, Green - Clean & Lean - Innovation for the New Century *for K-14 teachers* & future teachers; City College of San Francisco.	June 10 & 11	Presented Urban Water Cycle – We All Live Downstream for teachers; Promotion of treatment tours	250	7500**
San Francisco Zoo Summer Camp	June 22	Water pollution prevention activities	35	70
Sons in Retirement (SIR) Monthly luncheon meeting; Elks Club	July 1	Water pollution prevention	150	300
United Educators San Francisco Retired Division (UESF-RD); Fort Mason	Sept. 17	Water pollution prevention	50	150
San Francisco Zoo Summer Camp	Sept.17	Water pollution prevention activities	45	90
Ulloa Elementary School PTA	Sept. 30	Adults and children; Water pollution prevention and water conservation	75	150
Total number reached			**935**	**9,040**

*Assumes attendees will discuss information learned with others.

** Assumes teachers will have at least 30 students per class room.

3.2.c Ongoing Implementation of Various Pesticide Reduction Program Efforts

Since 1999, SFPUC's CSD has participated in outreach efforts and the funding of a regional Integrated Pest Management (IPM) Partnership – the *"Our Water, Our World"* (OWOW) program, which is coordinated through the Bay Area Stormwater Management Agencies Association (BASMAA). The OWOW Regional IPM Committee holds meetings monthly.

The program entails enlisting local stores (such as hardware and gardening stores) to participate in distributing information and fact sheets on less-toxic gardening alternatives and in providing less-toxic product alternatives for their customers. In 2009, SFPUC CSD hired consultant Annie Joseph to help oversee and implement SFPUC's OWOW program.

The list of local participating stores and copies of the OWOW fact sheets can be viewed by clicking on the OWOW link from the CSD homepage (http://pollutionprevention.sfwater.org).

3.2.d San Francisco Gardening Calendar

The San Francisco Gardening Calendar, which the CSD has produced since 2000, highlights photos of plants, flowers, and gardens grown in San Francisco with less-toxic techniques, also referred to as Integrated Pest Management (IPM). Approximately 35,000 calendars are given out each year to San Francisco residents and businesses.

In 2009, the Calendar included storm water pollution prevention messages such as the "Only Rain Down the Drain," promotion of the use of native plants, and reduction of pollutants entering into the storm drains. The calendar also provides tips on tending to gardens with less-toxic methods and promotes the OWOW program through participating stores that provide less-toxic alternatives. Each month, there is a list of garden tasks highlighting different IMP techniques for specific pests and plant diseases. The calendar also includes the dates of events throughout the year, such as gardening fairs and IPM-related programs.

The calendar contains a pull-out survey on a pre-paid business-reply postcard for calendar recipients to fill out and return if they desire. The survey was initiated in 2004 and continues on through the 2009 edition of the calendar. Appendix C contains a summary of the feedback from 2009, including responses to specific questions (e.g.: Do you apply chemicals for weed or pest control in your garden? Do you recognize the OWOW log?) and verbatim comments/feedback provided on the cards. Appendix C also includes a time trend summary of the survey responses from 2004 through 2009.

3.2.e Ongoing Educational Efforts

The SFPUC achieves its public education and outreach objectives through the work of its own staff, as well as by funding other City agencies or outside organizations that do related work. This section describes these various educational efforts which enable the storm water pollution prevention messages to reach the public through a variety of methods.

San Francisco Department of the Environment (SFE): Since 2003, the SFPUC has provided funding to the San Francisco Department of the Environment (SFE) to enable their school education staff to make water pollution prevention presentations available to 4th & 5th grade classrooms. SFPUC staff helped develop a lesson plan that includes key background information

(such as the water cycle, bio-magnification and the meaning of "Only Rain Down the Drain") and this is provided to teachers so that they may present these background topics to their students prior to the date of the SFE water pollution prevention presentation. This allows more time to be spent on pollution prevention messages with students during the SFE presentation. Each presentation is followed by a questionnaire regarding changes in student behavior, to be filled out by the teacher. In addition to educating students directly, an objective of these presentations is to have students take the pollution prevention message home to their parents.

In 2009, a total of 67 classroom presentations were made at 44 public and private schools in San Francisco, reaching approximately 1,900 students. The ninety-minute presentation taught fourth and fifth grade students about the earth's water supply, the interdependence of our bay ecosystem and the harmful impacts of pollutants in our bay and ocean. Students were educated about direct and meaningful solutions to prevent water pollution and conserve water. Refer to Appendix C for summary report from SFE on the presentations and including excerpts from the teacher evaluations completed.

Conservation Connection: The SFPUC also continued to sponsor Conservation Connection, a partnership between the SFPUC, the SFE and the San Francisco Unified School District (SFUSD). The goal is to present teachers, students and community members with an environmental program relevant to urban life by using proven educational messages and strategies. The partnership improves learning, increases an understanding of the natural environment and instills an environmental ethic and sense of stewardship for the earth. Messages about the preservation and conservation of San Francisco's watersheds are emphasized.

In 2009, approximately 55,272 students, 2,617 teachers and 110,544 parents were reached by this program in the form of teacher workshops, in-class lessons taught by teachers, nature hikes, and a monthly curriculum calendar. Appendix C contains the Conservation Connection Annual Reports submitted to the SFPUC (both the FY 2008-2009 report and an update for calendar year 2009.

Refer to Table 11 below (Conservation Connection Education Efforts) for a breakdown of target audiences reached through the various Conservation Connection programs.

Table 11: 2009 Conservation Connection Educational Efforts

Event or Program	Teachers Reached	Students Reached	Parents Reached
Conservation Connection Schools (7)	22	595	1,190
CC Staff In Class Visits	9	225	450
Teacher Workshops 1 ESC, 5 CC	75	1,875	3,750
In-Class Lessons Taught by Teachers	428	1,375	2,750
Environmental Science Center Hikes	33	825	1,650
Conservation Connection Hikes	48	1200	144
Environmental Fair	72	1,236	2,472
Monthly Curriculum Calendar	2,617	55,272	110,544

School Environmental Education Program: Beginning in 2005, SFPUC Communications staff members used Project Wet, Save Our Seas and Waves, and Wetlands and Watersheds curriculums to develop and implement the Middle School Environmental Education Program (MSEEP). This program includes stormwater activities and relates to the wastewater treatment plant tours. The SFPUC's goals is to help educate 6th, 7th and 8th graders with the critical thinking skills necessary for them to make informed consumer choices that they will soon be facing as young adults and beyond. Staff also hopes that by bringing staff that represent the diverse employee and job base at the SFPUC, students will learn about the many career choices that are available to them. In 2008, the MSEEP was changed to the School Environmental Education Program (SEEP) and is now available to students in 3rd grade and above. In 2009, there were no SEEP presentations in the classroom. Instead, educational presentations regarding storm water pollution prevention, water pollution prevention and water conservation were condensed and delivered to students prior to their touring the wastewater treatment plant. There were 21 classroom tours of one of the City's treatment plants in 2009 with 625 participants.

The Watershed Project: In October 2009, the Watershed Project conducted a "Kids in Gardens" workshop for San Francisco County educators. The Kids in Gardens program supports the missions of the SFPUC and San Francisco Beautiful. The Watershed Project's program promotes environmental stewardship by encouraging and supporting educators to create and use gardens to teach about pesticide-free gardening methods, to reduce urban runoff pollution, and as a means to enhance and protect the beauty and livability of San Francisco.

By supporting the Watershed Project's programs, the SFPUC and San Francisco Beautiful enabled outreach to potentially thousands of San Franciscans in 2009. A total of 9 San Francisco County educators participated in this training program. Assuming that each educator reaches 50 students and each student reaches two community members, these educator workshops potentially influenced approximately 450 students and 900 community members. With their enthusiasm and knowledge heightened by the Watershed Project workshop, these educators continue to spread environmental awareness and lessons about stormwater pollution prevention to students and community members alike.

Techbridge: In December 2009, the SFPUC hosted a day-long field trip for Techbridge participants to the Southeast Water Pollution Control Plant, which included a plant tour and several hands on activities. These activities included: a pulley experiment, work in the Instrumentation and Control Shop, experiments in the water quality lab, and a stormwater/rain harvesting demonstration. Techbridge participants also had the opportunity to talk to SFPUC employees over lunch and ask them questions about their careers as scientists, engineers, and planners. Overall feedback was very positive, particularly from the older participants who expressed that they had learned a lot. The mission of Techbridge is to encourage girls in technology, science and engineering. Techbridge offers after-school and summer programs with hands-on projects, career exploration opportunities, and academic and career guidance (www.techbridgegirls.org).

3.2.f Treatment Plant Tours (Students and Residents)

The SFPUC has been coordinating student and resident tours of the Oceanside and Southeast Wastewater Treatment Plants since 2006. For residents, the tours allow ratepayers to have an opportunity to tour the plants and become more knowledgeable about the wastewater treatment process in relation to the proposed rate increase. For students, the tours teach students how their everyday actions impact the wastewater treatment process and ultimately the receiving water bodies. The SFPUC's *Follow the Flow* brochure for the treatment plant tours is included in Appendix C.

The ultimate goal of both types of tours is to encourage positive behavioral changes with regard to littering, reduction in household chemical use and the proper disposal of household cleaning chemicals, paint, and other common pollutants. Tour information and information on signing up for a tour can also be found on the www.sfwater.org website (Wastewater/Where Does it Go?/Treatment Plants).

In the 2009 calendar year, there were a total of 52 plant tours, reaching residents, students and professional/community groups, as summarized below in Table 12 (Wastewater Treatment Plant Tour Attendance).

Table 12: Wastewater Treatment Plant Tour Attendance (2009)

Type of Group	Total Tours	Total Attendees	Potentially Reached(c)
San Francisco Resident/Ratepayer (a)	8	207	414
School Students (5th-12th Grades) (b)	21	626	1,252
Undergraduate Students	5	44	88
Professional/Community Groups	11	217	434
Big Blue Bucket outreach event	7	75	150
TOTAL NUMBER	52	1,169	2,338

(a) Four tours cancelled due to little or no interest in January, June, and July.
(b) One tour was cancelled in December due to HVAC upgrades at the Oceanside Plant.
(c) Family members/friends potentially were reached via the tour attendees' participation.

School Group Tours: In the 2009, twenty-one school groups that took treatment plant tours, with classes participating ranging from the 4th to 12 grade. School group tour participants totaled 516 students and 110 teachers/chaperones. There were also 5 tours given to undergraduate schools, with a total of 44 undergraduate students and teachers completing the tours.

To complement the tour, students were given a lesson in the biology of water pollution prevention which includes an overview of what the SFPUC biologists do to ensure that the plant effluent meets all federal and state standards. Students are taught to use a Dichotomous Key to identify fish and other aquatic species. Since middle school students may be helping in the home with cooking and cleaning, they are also given a copy of the *Clean It!* Guide to take home, along with information about the Fats, Oils and Grease (FOG) Program, proper pet waste disposal and any other current water pollution prevention campaigns currently in place. This information serves to personalize and reinforce the water pollution prevention message with them, and ultimately introduces the message to the home.

Resident Tours: Tours were conducted monthly on one Saturday of each month, primarily at the Oceanside Plant in 2009. Tours are generally limited to 35 attendees and are available to residents on a first-come, first-serve basis. In 2009, there 8 resident tours were held, with a total of 207 residents participating. Three tours were cancelled due to little or no interest (in January, June, and July), and the December tour was cancelled due to work being carried out at the facility. In order to reinforce water pollution prevention message, all residents that attend tours are given copies o the five *It!* guides, as well as OWOW fact sheets on less-toxic gardening and pest control methods and products.

In 2009, residents were asked to provide feedback on their tour. Feedback was positive, with 69.5% of the respondents indicating affirmatively to this question: "Will the information you received encourage you to change some of your daily disposal habits?" and 56% of the respondents indicating affirmatively to this question: "Will the information you received encourage you to consider less-toxic alternatives for your home/business?" The completed survey results can be seen in Appendix C.

3.2.g Website

The SFPUC created a Stormwater Management Homepage in 2003 (http://stormwater.sfwater.org/). The main Stormwater Management page currently has six sub-program areas: Stormwater Management Plan; Better Streets San Francisco, Urban Watershed Planning; Rainwater Harvesting (added in 2008); Project Review and Technical Assistance; Demonstration Projects; Stormwater Design Guidelines; and Low Impact Development (LID). Each program area is represented by a program icon, as shown in Figure 3 (Stormwater Management Homepage Topics), and visitors can click on the icons to get more information on each program area:

Figure 3: Stormwater Management Homepage Topics

Content for each of the program area links is updated and expanded as needed throughout each year. In 2009, significant updates were made to the majority of the online information related to stormwater management.

The SFPUC also has a homepage for its Water Pollution Prevention Program – a program that has the main objective of keeping pollutants from entering the City's MS4 storm drains and combined sewer drains (http://pollutionprevention.sfwater.org). This homepage includes links to two key programs related to stormwater and the objectives of San Francisco's Stormwater Management Plan -- "Only Rain Down the Drain!: Keeping Pollutants Out of the San Francisco Storm and Sewer Drains" and "Construction Site Runoff Pollution Prevention Procedures".

Appendix C contains print outs of the stormwater related web pages from the SFPUC website which relate to implementation of the SF SWMP.

Web Site Statistics: Below are links and page views for some of the key websites that relate to stormwater pollution prevention and implementation of SF SWMP programs.

> **"Stormwater Management" Homepage:** Provides an overview of SFPUC's stormwater management program area.
> http://sfwater.org/msc_main.cfm/MC_ID/14/MSC_ID/361
> 2009 Page views = 4,467

"Low Impact Design" page: Provides details on low impact alternatives for management of stormwater and projects occurring within the City.
http://sfwater.org/mto_main.cfm/MC_ID/14/MSC_ID/361/MTO_ID/541
2009 Page views = 1,208

"Stormwater Design Guidelines" page: Provides details on the Design Guidelines which will improve San Francisco's environment by reducing pollution in stormwater runoff in areas of new development and redevelopment.
http://sfwater.org/mto_main.cfm/MC_ID/14/MSC_ID/361/MTO_ID/543
2009 Page views = 3,099

"Urban Watershed Planning" page: Provides information on SFPUC's work to involve residents and planners in development of green stormwater management strategies based on San Francisco's urban neighborhoods, which contain residential, commercial, and industrial land uses along with parks and natural areas that make up the eight major drainage areas of the City.
http://sfwater.org/mto_main.cfm/MC_ID/14/MSC_ID/361/MTO_ID/550
2009 Page views = 1,178

"Stormwater Management Plan" page: Contains information on the Plan and attachments with the plan sections and attachments:
http://sfwater.org/mto_main.cfm/MC_ID/14/MSC_ID/361/MTO_ID/542
2009 Page views = 174

"Only Rain Down the Drain!: Keeping Pollutants Out of the San Francisco Storm and Sewer Drains" page: Contains information on the Only Rain Down the Drain! public education campaign which involves marking of storm drains with no dumping decals that promote a reporting hotline. Provides tips and additional resources for residents.
http://sfwater.org/detail.cfm/MSC_ID/92/MTO_ID/NULL/MC_ID/4/C_ID/2115/holdSession/1
2009 Page views = 49

"Construction Site Runoff Control Procedures" page: Describes the SFPUC's assistance and regulatory program to minimize construction related runoff pollution.
http://sfwater.org/detail.cfm/MC_ID/14/MSC_ID/118/C_ID/3084
2009 Page views = 40

In 2009, the SFPUC also launched a blog site (http://sfsewers.blogspot.com) which posted many articles related to stormwater issues.

3.2.h Watershed Mapping Project

The SFPUC Planning Division and CSD staff published a watershed map with the Oakland Museum of California and the SF Estuary Institute in 2007. The map shows the City's "sewersheds" for the combined system, historical water bodies, and separate sewer areas of the City. CSD staff composed much of the outreach portion of the map including pollution prevention tips, CSO information and the SFPUC's stormwater pollution prevention efforts. The map was provided in the 2007 Annual Report and is now available online at www.museumca.org/creeks/MapSFr.html.

Throughout the calendar year 2009, SFPUC staff worked to distribute these maps to nonprofit groups and other interested organizations in San Francisco. Table 13 (Creek and Watershed Map of San Francisco Distribution) summarizes requests for the "Creek and Watershed Map of San Francisco" in 2009 to interested parties.

Table 13: Creek and Watershed Map of San Francisco Distribution (2009)

Date	Interested Party/Event	Quantity
4/24/2009	Planet It Drum Foundation, Jean Lingrim	30 maps
5/7/2009	Solveig Dimon, San Francisco School (librarian)	50 maps
5/26/2009	Tracy Zhu, Literacy for Environmental Justice	2 maps
9/26/2009	SFPUC Big Blue Bucket event	1/2 box

3.2.i Low Impact Design Speakers Series

SFPUC staff continued to host lectures as a part of the Low Impact Development (LID) Speakers Series. The LID Speakers Series aims to bring innovative new ideas about stormwater management to SFPUC staff, the design community, and the public by inviting speakers to present their ideas in a lunch time lecture. Table 14 (Low Impact Design Speaker Series) lists the various topics, speakers and dates for 2009.

Table 14: Low Impact Design Speaker Series (2009)

Event Title	Date
Interlocking Pavers	1/8/2009
Neighborhood Scale Stormwater Management	6/11/2009

3.2.j Rainwater Harvesting Outreach and Education

The Urban Watershed Management Program launched its Rainwater Harvesting Program in October 2008 with a rain barrel subsidy offer, along with demonstration projects, public workshops, public speaking engagements, and a new section on the web page. For a list of presentations, workshops, and educational events led by SFPUC staff in 2009 to educate the about rainwater harvesting, see Table 15 (Rainwater Harvesting Outreach).

In 2009, the Rainwater Harvesting Program continued to develop related policies through the multi-agency working group established in 2007. Participants include SFPUC's Wastewater Enterprise and Water Enterprise; the Department of Public Health, and the Department of Building Inspection. The group collaborates to address safety and permitting issues associated with rain barrels and cisterns in a way that is satisfactory to all City departments and will be clear to the public. The group made progress in 2009, updating the city-wide Rainwater Harvesting Systems Memorandum of Understanding, which records permitting and safety agreements made between the agencies. Refer to Appendix C for a copy of the MOU.

SFPUC staff also allocated professional services funds to create a Rainwater Harvesting Manual for San Francisco residents. The manual will provide technical information and a guide to help interested residents in navigating the City's permit process. The target date for completion of the manual is the summer of 2010.

SFPUC staff continued the rainwater harvesting subsidy program and expanded it in 2009 to include cisterns as well as rain barrels. SFPUC partnered with the Urban Farmer Store to provide a subsidy to the public. The subsidy allows residents to receive $30.00 off of the first rain barrel they purchase and $50.00 off of each additional barrel. This financial inventive is meant to encourage residents to create more storage for rainwater by linking barrels together.

The SFPUC Big Blue Bucket, held to inform residents about a full range of SFPUC programs available to them, featured rainwater harvesting again in 2009. At the Stormwater Management booth, SFPUC staff provided information on all of the Urban Watershed Management Program's efforts and distributed rainwater harvesting brochures. Several rain barrel installation workshops were presented throughout the day along with demonstrations from Urban Farmer Store staff on how to connect a rain barrel to a low tech, low energy irrigation system. In addition, ten free rain barrels were raffled off to city residents.

Table 15: Rainwater Harvesting Outreach

Presentation/ Event Date	Presentation /Event Led by SFPUC Staff
February 18, 2009	Green Building Professionals Guild – Presentation included material on rainwater harvesting policy development, permit requirements, and technical content.
March 24, 2009	Pacific Energy Center Water Conservation Showcase – Presentation included material on rainwater harvesting policy development, permit requirements, technical content, and do-it-yourself tips.
June 24, 2009	Rainwater Harvesting Guidance for Schools – A meeting with the Green Schoolyard Alliance and the San Francisco Unified School District to discuss criteria for rainwater harvesting projects on school grounds.
September 21, 2009	Rainwater Harvesting Workshop at San Francisco Zoo – Free public workshop included disassembling and reassembling daisy-chained rain barrels at the Zoo's Conservation Corner. The 8-barrel system will serve as a demonstration project for visitors to the zoo. This was a press event that included a speech and interviews with Supervisor Carmen Chu.
September 26, 2009	Big Blue Bucket – Activities included a short presentation on rainwater harvesting, a workshop focusing on the use of rainwater for irrigation, an information booth, and a raffle.
September 29 & 30, 2009	State of the Estuary Conference – Staff presented a poster on rainwater harvesting projects in five of San Francisco's public elementary schools.
November 17, 2009	Stopwaste Bay Friendly Landscaping Training – Lecture included technical information on the use of rainwater for toilet flushing and irrigation.
December 14, 2009	An interview with staff was aired on KQED's Quest program, highlighting what Bay Area cities and citizens are doing to promote rainwater harvesting.

In 2009 SFPUC staff created the following new outreach pieces regarding rainwater harvesting:

- A Watershed Stewardship Grant Application and Application Guidelines
- A Watershed Stewardship Grant Flyer
- Watershed Stewardship Grant Evaluation Criteria
- A rainwater harvesting how-to video (*Making Your Own Closed-Top Rain Barrel System*)
- A fact sheet with instructions for making a multi-barrel rainwater harvesting system
- A Rainwater Harvesting FAQ
- A PowerPoint presentation on rainwater harvesting was posted online
- Two videos produced by other organizations were posted to the rainwater harvesting portion of the SFPUC website:
  - Green Dean TV: Installing a Rain Harvester
  - YouTube: Rain Water

SFPUC staff was also engaged in having rainwater harvesting demonstration projects installed in 2009. Refer to Section 7 (Post Construction Controls) for more details.

3.2.k Urban Watershed Stewardship Grants

In 2009, SFPUC staff established a partnership with the Community Challenge Grant Program (CCGP), which is managed out of the City Administrator's Office. Through this partnership, SFPUC is able to allocate grant funds to community-driven projects striving to implement green infrastructure in San Francisco's watersheds. To be eligible, proposed projects had to include at least one of the following elements:

- Rainwater harvesting and use (this may range from a series of linked rain barrels to large-scale cisterns).
- Installation of stormwater management facilities such as rain gardens, wetlands, permeable paving, flow-through planters, or others.
- Removal of impermeable surfaces and replacement with plantings (plantings must consist of climate-appropriate vegetation or edibles).

In 2009, SFPUC staff participated in two grant cycles and awarded $192,000 to grant winners across the city. Winning proposals included toilet flushing using rainwater, removing impervious surface to create a neighborhood garden, working with neighbors to make their sidewalks more permeable, and installing rainwater harvesting systems in San Francisco's public schools.

As these projects are realized in the coming year, SFPUC staff will document their planning, design, and construction phases. For more information about this program, please go to http://stormwater.sfwater.org and click on the Urban Watershed Stewardship links at the top of the page.

3.3 Measurable Goals Status Report

The summary table below presents status information on the Public Education and Outreach Measurable Goals set forth in the SF SWMP (as summarized in SWMP Appendix F: Measurable Goals Summary Table).

Table 16: Status Summary of Public Education and Outreach Goals

SWMP TASK NUMBER (from SWMP Measurable Goals Table/Appendix F)	STATUS & DOCUMENTATION
1A: GENERAL MATERIALS DEVELOPMENT Produce & distribute facts sheets with information related to SWMP development, status, implementation progress, etc. as needed. Measurable Goal(s): Ongoing fact sheet availability.	**STATUS:** COMPLETED & ONGOING • The SWMP was not updated in 2009, therefore, no new fact sheet was produced.
1B: PUBLIC AWARENESS SURVEY Public Opinion survey to gauge the public's level of awareness regarding pollution prevention issues. Measurable Goal(s): Results of surveys	**STATUS:** COMPLETED & POSSIBLE FUTURE ACTION • The SFPUC completed a public opinion survey in 2006. Results were included in past annual reports. • The SFPUC has allocated funding to conduct another survey in 2010. **Possible Future Action:** ➢ If funds remain available, the SFPUC may carry out another public awareness survey that will include questions related stormwater pollution issues.
1C: WEB-BASED EDUCATION & OUTREACH Development of web-accessible information and resources relating to the SWMP and implementation of control measures. **1C.3) Conduct internal tests / Launch site** Measurable Goal(s): website content **1C.4) Run / update site** Measurable Goal(s): Update site to include new LID information and Construction site Runoff Pollution Prevention requirements. Number of Visitors / Unique visitors; Number / type of requests	**STATUS:** COMPLETED & ONGOING • The SFPUC's stormwater website is located at http://stormwater .sfwater.org • See Appendix C for print outs of the key pages from the website. • Refer to Section 3.2.g of this report for website page view statistics • In 2009, the SFPUC also launched a blog site (http://sfsewers.blogspot.com) which posted many articles related to stormwater issues.

1.D SFPUC COMMUNICATIONS STAFF TRAINING Train SFPUC Communications Department staff on the SWMP and their role in assisting in implementing the various Control measures (e.g., campaign development, public meeting organization, etc.)	**STATUS:** COMPLETED & ONGOING • SFPUC staff involved in implementing the SF SWMP programs met with SFPUC Communications staff after the SF SWMP was completed in 2004 to discuss the role the Communications group would have in assisting with implementation of education and outreach aspects of the plan. • The SFPUC Communications staff has worked on all education and outreach aspects of the SFPUC's stormwater pollution prevention programs and continues to work on ongoing implementation of such programs and of SF SWMP programs.
1E: STORMWATER CURRICULUM Develop and institute stormwater curriculum materials for use in local schools. **1E.2) Implement curriculum use in schools** Measurable Goal(s): Number/percentage of schools using curriculum & # of students taught with the materials	**STATUS:** COMPLETED & ONGOING • SFPUC Funding of San Francisco Department of the Environment classroom presentations: – In 2009, a total of 67 classroom presentations were made at 44 public and private schools in San Francisco, reaching approximately 1,900 students (primarily 5th graders). Documentation: Appendix C contains a summary report from SFE. • SFPUC funding of Conservation Connection: – In 2009, approximately 55,272 students, 2,617 teachers and 110,544 parents were reached by this program in the form of teacher workshops, in-class lessons taught by teachers, nature hikes, and a monthly curriculum calendar. Documentation: Appendix C contains Conservation Connections' Annual Report for FY 2008-2009 and an update for calendar year 2009, both of which were submitted to the SFPUC by the SFUSD. • SFPUC School Environmental Education Program (SEEP) – In 2009, there were no SEEP presentations in the classroom. Instead, educational presentations regarding storm water pollution prevention, water pollution prevention and water conservation were condensed and delivered to students prior to their touring the wastewater treatment plant. • The SFPUC also carried out stormwater education outreach outside of the classroom, through presentations at community/neighborhood group meetings (11 events with over 900 attendees total) and by having information and materials available at public events (over 20 events). Residents also learned about stormwater issues during treatment plant tours held for residents (8 tours were held in 2009 with over 200 residents participating in total).
1F: VISITOR EDUCATION Development and implementation of educational messages for visitors/tourists on preventing storm water pollution	**STATUS:** COMPLETED • The No Dumping storm drain markers designed and installed throughout the City serve to educate visitors and tourists about not dumping into storm drains.

1G: COMPLAINT/REPORTING HOTLINE Promote a reporting hotline for the public to report incidents of charges to storm drains. This programs ties into an existing hotline used by residents to report other issues. SFPUC will work with hotline administrator (DPW) to ensure procedures are followed and phone trees used are up to date. Measurable Goal: # incidents/complaints handled (*See Task 3H in the Illicit D&E section for related task on improving the complaint response process)* ***Note on Hotline Reporting for MS4 & Combined Sewer Drains:*** Note that SFPUC CSD staff is responsible for responding to reports of illegal discharges to all City storm drains (both MS4 drains and drains that flow to the combined sewer system). Calls to the 311 hotline can be for drains located in either the separate or combined sewer system areas. SFPUC's tracks those reports related to MS4 areas.	**STATUS:** COMPLETED & ONGOING The citywide 311 Call Center has been receiving all public calls regarding illicit discharges since 2007. Calls are routed to CSD for investigation and resolution. The past reporting line of 695-2020 has been rolled over to the 311 call center. • Staff responded to 601 service request calls in 2009. Of these, 31 were clearly illicit discharge incidents (illegal dumping, spill reports, construction site related issues or grease related). This is down from 113 in 2008. Refer to Section 5 (IDDE) of this report for more details. Documentation: • See Appendix E for the Illicit Discharge tracking log.
1H: EFFECTIVENESS EVALUATION Evaluate the effectiveness of Control Measure activities/BMPs implemented (e.g., of promotional campaigns, printed materials, and press & media coverage). Measurable Goal: Comparison of results versus goals for each BMP	**STATUS:** COMPLETED & ONGOING See the preceding sections of this chapter for progress in the various activities: • the visitor activity on the website; • the number of calls from the 311 Call Center hotline; and • the numbers of students reached by the various educational programs.
1I: REFINEMENT OF MEASURABLE GOALS Review goals for this control measure. With information gained (in program planning, working groups, work plan development, and implementation), revise and refine goals (as needed) to make them more measurable/numeric and to address both task completion and task effectiveness. Measurable Goal(s): Evaluation of Public Education & outreach goals and revised goals (where applicable)	**STATUS:** COMPLETED, ONGOING & ACTION NEEDED The SFPUC proposes no revisions to the measurable goals for this Minimum Control Measure at this time. **Action Needed in 2010**: ➢ Revise the SWMP Tasks for the Public Education and Outreach minimum control measure (and their applicable measureable goals) to reflect the status of work already completed

3.4 Proposed SF SWMP Amendments

The SFPUC recommends the following amendments be made to the SF SWMP for the Public Education and Outreach minimum control measure.

- Revise the SWMP Tasks for the Public Education and Outreach minimum control measure (and their applicable measureable goals) to reflect the status of work already completed.

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SECTION 4: PUBLIC INVOLVEMENT / PARTICIPATION

4.1 Introduction

The goal of the Public Involvement/Participation minimum control measure is to comply with the requirement that, as the Phase II General Permit permittee, the SFPUC must "comply with State and local public notice requirements when implementing a public involvement/participation program." The SFPUC meets this goal by complying with notice requirements and providing members of the public with opportunities to comment on the SF SWMP and to participate in the program's development and implementation.

In 2009, the SFPUC's activities relative to compliance with the Public Involvement/Participation minimum Control measure centered on the following:

- Continued posting on SFPUC website of updates on implementation of SF SWMP programs;
- Providing related updates at Citizen's Advisory Committee meetings;
- Holding meetings with targeted interested parties (such on management of San Francisco's largest MS4 Area, Lake Merced); and
- Involving the community in the development and adoption of Post-Construction Controls.

Staff also responded to public requests for information on an as-needed/as-requested basis.

4.2 Continued Compliance with Public Noticing Requirements

The City's Sunshine Ordinance (Chapter 67 of the San Francisco Administrative Code) ensures that deliberations are conducted before the people and that City operations are open to public review. The Sunshine Ordinance Task Force exists to provide information on rights under the Ordinance and for reporting violations. The City complies with State public notice requirements, as well as the following local requirements which are contained in the Sunshine Ordinance:

Section 67.7-1 Public Notice Requirements

(a) Any public notice that is mailed, posted or published by a City department, board, agency or commission to residents residing within a specific area to inform those residents of a matter that may impact their property or that neighborhood area, shall be brief, concise and written in plain, easily understood English.

(b) The notice should inform the residents of the proposal or planned activity, the length of time planned for the activity, the effect of the proposal or activity, and a telephone contact for residents who have questions.

(c) If the notice informs the public of a public meeting or hearing, then the notice shall state that persons who are unable to attend the public meeting or hearing may submit to the City, by the time the proceeding begins, written comments regarding the subject of the meeting or hearing, that these comments will be made a part of the official public record, and that the comments will be brought to the attention of the person or persons conducting the public meeting or hearing. The notice should also state the name and address of the person or persons to whom those written comments should be submitted. (Added by Ordinance 185-96, App. 5/8/96; amended by Proposition G, 11/2/99)

With respect to public noticing in relation to issues related to SF SWMP minimum control measures, the SFPUC complied with public notice requirements wherever and whenever they were applicable, such as relative to the following activities:

- Presentations made to the SFPUC Commission on the proposed Stormwater Design Guidelines and Stormwater Ordinance (12/09)
- Presentations to the SFPUC Commission regarding development of the SF Sewer System Master Plan, which included discussion of integrating Low Impact Design into SFPUC projects.
- Meetings of the Wastewater Citizen's Advisory Committee and of the Lake Merced Task Force were properly posted and noticed on the SFPUC website.

4.3 Updates on Website and Citizen's Advisory Committee Meetings

Ongoing Availability of Information on SFPUC Website: As previously stated in Section 3.2.g of this annual report, the SFPUC website has information on how the SFPUC is implementing the minimum control measures required by the Phase II General Permit. For example, the a Stormwater Management Homepage (http://stormwater.sfwater.org/) has a link to the San Francisco Stormwater Management Plan as well as to the following related programs: the SPFUC Urban Watershed Planning Program; the Rainwater Harvesting Program; Project Review and Technical Assistance; Demonstration Projects; Stormwater Design Guidelines; and Low Impact Development (LID). The homepage for SFPUC's Water Pollution Prevention Program (http://pollutionprevention.sfwater.org) also has information stormwater pollution prevention and links to pages on the "Only Rain Down the Drain!" storm drain marking educational campaign and to Construction Site Runoff best management practices and requirements. Refer to Appendix C for print outs of the stormwater related web pages from the SFPUC website which relate to implementation of the SF SWMP.

Citizens' Advisory Committee Meetings: The SFPUC Citizens Advisory Committee (CAC) was established pursuant to Ordinance Number 58-04 to ensure that the public could provide recommendations to the SFPUC General Manager, the Commission and the Board of Supervisors regarding the agency's long-term strategic, financial, and capital improvement plans. The CAC is comprised of 17 appointees, and is divided into four subcommittees: Water, Wastewater, Power, and Environmental Justice.

The CAC Wastewater Subcommittee reviews sewage and stormwater collection, treatment and disposal system replacement, recycling, and other relevant plans, programs and policies and, therefore, is the forum where SWMP related information is generally presented. Updates on stormwater and wastewater issues are presented to the full CAC when the Wastewater Subcommittee provides its subcommittee report at the full CAC meetings. The Wastewater Subcommittee has regularly scheduled monthly meetings; these meetings are open to the public and public attendees can ask questions and offer comments. Agendas are posted in advance on the SFPUC website.

In 2009, there were 8 meetings of the full CAC and 10 meetings of the Wastewater Subcommittee, as listed Table 16 (Meetings of SFPUC Citizens' Advisory Committee). Agendas and minutes of these meetings are posted on the SFPUC's website at: http://sfwater.org/listview.cfm/MC_ID/18/MSC_ID/125/MTO_ID/538.

In 2009, there was a great deal of interest from the community regarding the progress of Low Impact Design and integration of "green" stormwater management techniques into the San Francisco Sewer System Master Plan. Accordingly, there were several presentations made related to these SWMP minimum control measures:

- March 19, 2009: 5-Year Wastewater CIP Update (Brief introduction on he Sunnydale Auxiliary Sewer Project - sewer construction by Manfred Wong**; Low Impact Design component** by Rosey Jencks**)**
- June 18, 2009: **Low Impact Design Update** (Plans for the $20 million for stormwater in combined sewer cities; Stormwater Design Guidelines rollout; Rainwater Harvesting Guidance; community challenge grants and the recycled water stations)

Table 16: Meetings of the SFPUC Citizens' Advisory Committee

Meeting Date	Documentation	Committee
1/15/09	Minutes	CAC Wastewater Subcommittee
1/27/09	Minutes	Citizen's Advisory Committee
2/19/09	Minutes	CAC Wastewater Subcommittee
3/19/09	Minutes	CAC Wastewater Subcommittee
3/24/09	Minutes	Citizen's Advisory Committee
4/16/09	Minutes	CAC Wastewater Subcommittee
5/04/09	Minutes	Citizen's Advisory Committee
5/26/09	Minutes	Citizen's Advisory Committee
6/18/09	Minutes	CAC Wastewater Subcommittee
6/23/09	Minutes	Citizen's Advisory Committee
7/19/09	Minutes	CAC Wastewater Subcommittee
7/28/09	Minutes	Citizen's Advisory Committee
8/20/09	Minutes	CAC Wastewater Subcommittee
9/17/09	Minutes	CAC Wastewater Subcommittee
9/22/09	Minutes	Citizen's Advisory Committee
10/27/09	Minutes	Citizen's Advisory Committee
11/19/09	Minutes	CAC Wastewater Subcommittee
12/17/09	Minutes	CAC Wastewater Subcommittee

4.4 Public Participation Specific to Lake Merced

Lake Merced is currently the largest MS4 area under the City and County of San Francisco's Phase II Permit (excluding areas under the Port's jurisdiction). The SFPUC has a very active presence with Lake Merced stakeholders because the SFPUC is responsible for ensuring good water quality at Lake Merced and for maintaining water levels.

SFPUC staff dedicates considerable time and effort in continuing several stormwater related projects to sustain the quality of the Lake Merced watershed. Those projects include: a Pilot Stormwater Diversion Program (allowing for the introduction of stormwater into the Lake); the

development of an Engineering Report (which provided some pre-design concepts for a stormwater treatment wetland); and continuing refinements to a watershed plan that will guide the SFPUC in long-term strategies for sustainable management of the Lake Merced Watershed. SFPUC staff also continues to monitor the quality of the lake water, and posts monitoring results on the website, www.sfwater.org. Refer to Appendix D for more information on the Lake Merced Pilot Stormwater Enhancement Project and lake water quality monitoring.

In 2009, there were two public meetings held by the SFPUC to make presentations about Lake Merced and to engage the community in discussion about the SFPUC's management at Lake Merced. Topics included updates about water level and water quality, watershed planning and major events at Lake Merced and at Harding Park. The website, http://www.lmtf.org/, includes additional information on the meetings.

Table 17: Community Meetings on Lake Merced

Topic	Date	Details
Lake Merced Task Force Meeting	January 2009	Meeting between SFPUC, SF Recreation and Parks and members of neighborhood organizations, other Lake Interest groups, and consultants for Vista Grande Plan.
Lake Merced Task Force Meeting	April 15, 2009	Meeting between SFPUC, SF Recreation and Parks and members of neighborhood organizations, other Lake Interest groups.

Refer to Appendix D for a list of the Member and Partner Organizations of the Lake Merced Task Force, as well as a copy of the April 15, 2009 Task Force meeting agenda.

The Lake Merced Task Force disbanded at its July 2009 Quarterly Meeting because the group determined that it had met its original objectives and specific projects are now underway to carry forward related work. Accordingly, future meetings related to Lake Merced will be focused on specific projects, such as the Lake Merced Watershed Plan, the Local Groundwater Supply Project, the Harding Park Recycled Water project and others.

4.5 Public Participation Specific to Post-Construction Controls

In 2009 there was significant public involvement and participation in relation to finalizing the San Francisco Stormwater Design Guidelines. The SFPUC and the Port of San Francisco completed 19 events to education and seek input from stakeholders.

Refer to Section 7.2 of this annual report for more many more details on public involvement and participation relative to this minimum control measure.

4.6 Interested Parties Database

The SFPUC's Communication and Public Outreach Division improved its procedures for public outreach, including, but not limited to stormwater management, in 2005 by starting to use a centrally managed database called GoldMine (GM) - a faster and easier means to reach constituents from a central location. It allows Communications staff to email a group of people at once, create labels, do mail merge, and track the nature of contact, etc. The database currently holds more than 9,000 contacts. SFPUC staff can look up contacts by contact-type (i.e. media, environmental organization, government), by subject-type arranged according to the projects undertaken by the

SFPUC, or even by where they live or work. For example, staff can search for contacts interested in the Wastewater Capital Improvement Plan (CIP) Projects, or Non-CIP projects (such as Stormwater Management or Flooding), or look up contacts within a certain zip code.

When SFPUC Communications attends street fairs and other public events, members of the public who are interested in receiving periodic updates about particular projects and programs can sign up to be included in the database, and are then folded into the database for immediate use. The database is updated depending on the frequency of the public outreach activities and request of stakeholders to be added into the database. There are three gatekeepers in charge of maintaining the database and making sure it stays up to date and free of duplicates.

4.7 Measurable Goals Status Report

The summary table below presents status information on the Public Involvement/Participation measurable goals set forth in the SF SWMP (as summarized in SWMP Appendix F: Measurable Goals Summary Table).

Table 18: Status Summary of Public Involvement/Participation Goals

SWMP TASK NUMBER (from SWMP Measurable Goals Table/Appendix F)	STATUS & DOCUMENTATION
2A: INITIAL SWMP WORK PLAN DEVELOPMENT Develop a plan for preparing informational materials and holding public meetings to solicit input on the SWMP from the public and address comments in the SWMP document. Measurable Goal(s): Work plan; Summary of actions taken	**STATUS:** COMPLETED & ONGOING • The SF SWMP was completed and submitted to the RWCB in 2004. • With respect to public involvement/participation in the ongoing development and implementation of the SF SWMP programs, in 2009 activities centered on the following: – Continued posting on SFPUC website of updates on implementation of SF SWMP programs; – Providing related updates at Citizen's Advisory Committee meetings; – Holding meetings with targeted interested parties (such on management of San Francisco's largest MS4 Area, Lake Merced); and – Involving the community in the development and adoption of Post-Construction Controls. – Staff also responded to public requests for information on an as-needed/as-requested basis. • Refer to Tasks 2E below for more details on these activities.
2B: INTERESTED PARTY DATABASE DEVELOPMENT Establish a database of parties that would be interested in the development of the SWMP for outreach regarding public meetings and comment opportunities. Measurable Goal(s): Database of interested parties developed (revise as needed)	**STATUS:** COMPLETED & ONGOING & ACTION NEEDED • In 2009, staff continued to use one centrally managed database using a system called Goldmine. – The database contains approximately 9,000 contacts and is updated by 3 main gatekeepers depending on the frequency of the public outreach activities and request of stakeholders to be added into the database. – This database system improves communications' outreach capabilities by allowing staff to access up to date records from a central location (rather than separate spreadsheets or hand-written notes), email to a group of people at once, create labels, do mail merge, and track the nature of contact, etc. Documentation: • SFPUC can provide contact lists from the database upon request. **Action Needed in 2010**: ➢ Review stormwater contacts in the SFPUC Communications Database to ensure that key contacts from individual minimum control measure that have implemented have been included.

2C: PRESENTATION MATERIALS DEVELOPMENT Create materials for use and distribution in public meetings on the SWMP. Measurable Goal(s): Power Point presentation / fact sheet(s); Number of presentations/fact sheets distributed	**STATUS:** COMPLETED See comments under Task 2A.
2D: INITIAL SWMP Draft and submit SWMP to the State (RWQCB). Identify advisory panel and interested parties, holding meetings with parties to present plan concept and obtain input, addressing comments in drafting of SWMP, documenting meetings and comment, and completing SWMP.	**STATUS:** COMPLETED See comments under Task 2A.
2E: REGULAR MEETINGS WITH INTERESTED PARTIES (working groups, meetings with agencies) Plan and hold regular meetings with parties interested in participating/hearing about design and implementation of BMPs to be implemented per the SWMP. Measurable Goal(s): # of meetings held; # of attendees; Documentation of comments	**STATUS:** COMPLETED & ONGOING Activities carried out included the following: 1. **Website Information**: Posting of information on the website: http://stormwater .sfwater.org and http://pollutionprevention.sfwater.org. See Appendix C for copies of SWMP related web pages and Section 3.2.g of this report for more details on web page content. 2. **SFPUC Citizen Advisory Committee Meetings:** SFPUC convened 18 meetings of the CAC and Wastewater Subcommittee of the CAC where members of the public are invited to here presentations related to wastewater and stormwater management, ask questions, and give their comments to the CAC. SWMP related presentations in 2009 were focused on Low Impact Development (Post-Construction Controls Minimum Control Measure). 3. **Lake Merced Presentations**: • SFPUC Communications Division staff attended and presented updates at 2 meetings of the Lake Merced Taskforce. Topics included updates about water level and water quality, watershed planning and major events at Lake Merced and at Harding Park. Visit the website, http://www.lmtf.org/ for more information. • Refer to Appendix D for a list of the Member and Partner Organizations of the Lake Merced Task Force, a copy of the April 15, 2009 meeting agenda, and more details on the Pilot Stormwater Enhancement Project and lake water quality monitoring. 4. **Post-Construction Controls Presentations:** • In 2009 there was significant public involvement and participation in relation to finalizing the San Francisco Stormwater Design Guidelines. The SFPUC and the Port of San Francisco completed 19 events to education and seek input from stakeholders. • Refer to Section 7.2 of this annual report for more details.

2F: REFINEMENT OF MEASURABLE GOALS Review goals for this control measure. With information gained (in program planning, working groups, work plan development, and implementation), revise and refine goals (as needed) to make them more measurable/numeric and to address both task completion and task effectiveness. Measurable Goal(s): Evaluation of Public Involvement	**STATUS:** COMPLETED & ONGOING & ACTION NEEDED The SFPUC proposes no revisions to the measurable goals for this Minimum Control Measure at this time. **Action Needed in 2010**: ➢ Review and revise Tasks 2A through 2D (and their measurable goals) to reflect progress of work to date and fact that presentations and outreach are now more about ongoing implementation of minimum control measures rather than development of SWMP document.

4.8 Proposed SWMP Amendments

The SFPUC recommends that the following amendments be made to the SF SWMP for the Public Involvement/Participation minimum control measure.

- Review and revise Tasks 2A through 2D to reflect progress of work to date and fact that presentations and outreach are now more about ongoing implementation of minimum control measures rather than development of SWMP document.

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SECTION 5: ILLICIT DISCHARGE DETECTION AND ELIMINATION

5.1 Introduction

In 2009, SFPUC staff continued to implement programs to ensure compliance with the Illicit Discharge Detection and Elimination minimum control measure of the Phase II General Permit. Ongoing programs included continued response to all reports of illicit discharges (and documentation of investigations and related actions in the CSD inspections database); marking of storm drains with No Dumping markers; continued use of digital tracking tools (such as GPS and GIS) and use of field inspections and sewer video tapes to enhance the effectiveness of IDDE efforts; maintaining an updated sewer base map with locations of all MS4 areas; and continuing to exercise the SFPUC's existing legal authority to control and minimize illicit discharges.

5.2 Progress on Work Plan Tasks

5.2.a Identification and Investigation of Illicit Discharges

SFPUC staff continued to respond to and investigate all reports of illegal dumping into storm drains throughout the City. The primary methods of reporting and identification is through the City's 311 call center dispatch system, initiated in 2007, and has been fully operational since 2008. Any calls from the public to this number reporting dumping into storm drains are routed to the SFPUC CSD for investigation. The "No Dumping" storm drain curb markers now have the 311 number; the phone number on the older version of the curb markers (695-2020) is still active because it rolls over to the 311 number to be answered by the 311 dispatchers.

In 2009, a total of 601 Service Request calls were received by the CSD from the 311 call center. Of these calls, a total of 56 were pertinent to illegal dumping or illicit discharges into storm drains, as summarized below:

- **Illegal Dumping:** Calls regarding illegal dumping of various materials and substances such as used motor oil, paint and solvents, grease, household chemicals, trash and debris into the City's catch basins. 31 calls were received in 2009.
- **Grease Complaints:** Calls regarding greasy floor mats being washed onto sidewalks, grease containers left on sidewalks, sewer back-ups from restaurants caused by sewer blockage in sewer laterals. 11 calls were received in 2009.
- **Construction Related Complaints:** Calls regarding lack of construction site good housekeeping practices and BMPs relative to site sediment and erosion control (such mud tracking onto city streets, unprotected catch basins and storm drains, saw-cutting and concrete slurry on streets, dumping of construction debris on project sites, illegal discharge of construction wastewater, and more). 8 calls were received in 2009.
- **Spill Reports:** Calls regarding grease, oil, paint, used motor oil, and other chemical spill on city streets. 6 calls were received in 2009.

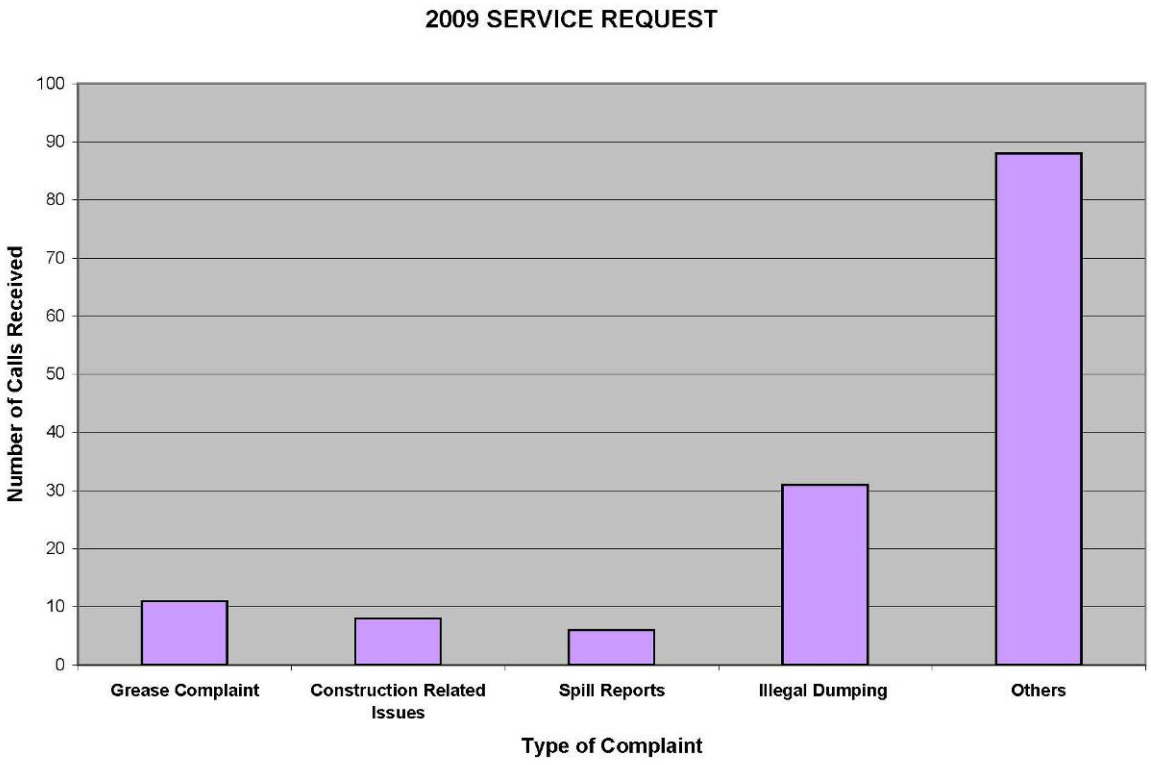
Some calls were coded "Other" because they related to issues such as dumped litter**,** trash pick-up, odor complaints, and tree-cutting complaints. These were re-routed by CSD to other City agencies that are assigned to address them given that they relate more to their core work. Some of these could relate to storm drain impacts (such as dumped litter), depending on the nature of the call and location of the incident.

- **Others:** Calls regarding litter**,** trash pick-up, odor, and tree-cutting complaints routed to CSD which should have been sent to another agency. 88 calls were received in 2009.

The largest number of calls, however, was not related to illegal dumping but were reports of catch basins needing to be swept of leaves and debris during heavy rains (as part of the SFPUC "storm watch" program).

- **Storm Watch Inspections:** Calls regarding flooded or slow draining catch basins made during or after a storm event caused by blockage of inlet grates by leaves, trash, litter and other debris. 440 calls were received in 2009.

Figure 4 (Complaint Response Service Requests) provides a bar chart representation of the calls related to illegal dumping or illicit discharges into storm drains, as well as those coded as "other" which were routed to other City departments to address. The chart does not include the calls reporting storm drains blocked during heavy rains.



See Appendix E for a copy of the Illicit Discharge Tracking Log[5] that lists all incidents of illicit discharges investigated by the CSD for the period of this annual report. This listing includes all

[5] The Illicit Discharge Tracking Log provided does not include the over 400 calls received regarding catch basins needing to be swept of leaves and debris during heavy rains (as part of the SFPUC "storm watch" program).

Service Requests, with the exception of the Storm Watch calls which are public calls regarding catch basin back ups during heavy rains.

Additionally, other methods of identifying illicit discharges available to and used by SFPUC staff include the following:

- Training inspection crews on IDDE-specific issues;
- Mapping all catch basins in GIS and linking IDDE complaints to individual MS4 storm drains or combined sewer drains when possible;
- Annually inspecting bay and ocean outfalls;
- Looking for non-stormwater runoff in the tapes of sewers that are videoed by sewer operations TV crews as part of the ongoing sewer inspection program; and
- Promoting IDDE reporting through the "Only Rain Down the Drain" program and other education and outreach programs.

In 2009, SFPUC staff conducted field survey work at each of the current non-Port MS4 areas in San Francisco to look for indications of any illicit discharges and to assess the state of IDDE program elements (such as existence of no dumping signs, no dumping storm drain markers, pet waste stations, and garbage cans). Table 19 (Survey Visits of SFPUC MS4 Areas) presents a summary of the findings.

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Table 19: Survey Visits of SFPUC MS4 Areas 2009

	Lake Merced	Stow Lake (GG Park)	Middle Lake (GG Park)	Elk Glen Lake (GG Park)	Pine Lake (Stern Grove)	McLaren Park Lakes	India Basin Park	India Basin OpenSpace	Candlestick Park Parking Lot	South Beach Harbor	Ocean Beach	SF R&P Small Craft Harbor	Mountain Lake
Are the **No Dumping curb markers** on all of theMS4 drains	Yes	Partial*	Yes	Partial*	Infeasible****	None	Yes	Yes	Yes	Yes	Partial*	Partial*	None
Number of **trash cans** in the vicinity of MS4 drains	15	7	2	1	8	5	9	1	30+	15	0	12	9
Frequency of trash cans collection & responsible dept. for collection and replacement/additions	*RecPark Daily*	*RecPark Daily*	*RecPark Daily*	*RecPark Daily*	*RecPark Daily*	*RecPark Daily*	*RecPark Daily*	*RecPark Daily*	*RecPark As-needed*	*San Francisco Redevelopment Agency Daily*	*N/A***	*RecPark Daily*	*RecPark Daily*
Number of **pet waste stations**	5	2	2	0	2	0	1	0	0	3	0	2	3
Frequency of restocking of pet stations & responsible dept. for restocking and replacement/additions	*RecPark Daily*	*RecPark Daily*	*RecPark Daily*	*N/A*	*RecPark Daily*	*N/A*	*RecPark Daily*	*N/A*	N/A	*San Francisco Redevelopment Agency Daily*	*N/A***	*RecPark Daily*	*RecPark Daily*
Number of **No Dumping signs**	3	Unknown	Unknown	4	2	1	1	1	0	2	Unknown	2	1
Department responsible for replacing /adding signage?	*RecPark*	*RecPark*	*RecPark*	*RecPark*	*RecPark*	*RecPark*	*RecPark*	*RecPark*	*RecPark*	*San Francisco Redevelopment Agency Daily*	*RecPark*	*RecPark*	*RecPark*

MS4 STORM WATER DRAINS & COMBINED STORM AND SEWER DRAINS

	Lake Merced	Stow Lake (GG Park)	Middle Lake (GG Park)	Elk Glen Lake (GG Park)	Pine Lake (Stern Grove)	McLaren Park Lake	India Basin	Candlestick Park Parking Lot	South Beach Harbor SF	South Beach Harbor SFRA	Ocean Beach	SF R&P Small Craft Harbor	Mountain Lake
Number of **MS4 Storm Drains**	*37*	*11*	*1*	*2*	*8*	*1*	*2*	*15*	*0*	*23*	*17*	*13*	*1*
Number of **Combined Storm & Sewer Drains**	*31*	*0*	*0*	*2*	*2*	*1*	*0*	*5*	*0*	*12*	*12*	*6*	*0*

NOTES:

*MS4 'No Dumping' Curb markers are on some, but not all, of the drains. This is due to infeasibility of placement; due to lack of curb, highly vegetated, or dirt surroundings.

**GGNRA is responsible for trash can collection and replacement/addition for the Ocean Beach area.

****Infeasibility is due to lack of curb, highly vegetated, or dirt surroundings.

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5.2.b No Dumping Signs and Only Rain Down the Drain Storm Drain Markers

A key component of the IDDE program is educating residents about not dumping into, or in the vicinity of, storm drains that lead to local water bodies. The SF SWMP work plan stated that this would be achieved through posting of No Dumping signs in MS4 areas and by securing No Dumping storm drain markers at individual storm drains.

No Dumping Signage: No dumping signage at the existing MS4 areas had been installed by the City agencies responsible for maintaining the areas (primarily the Recreation and Parks Department), as documented in a field survey of MS4 areas in 2004. Field survey work done in late 2009 of all MS4 areas, however, revealed that some areas no longer have no dumping signage; in 2010 SFPUC staff will meet with applicable City agencies (such as Recreation and Parks) to discuss ensuring that such signage be replaced in strategic areas.

No Dumping/Only Rain Down the Drain Storm Drain Markers: The SFPUC created the design of new plastic No Dumping storm drain markers in 2003. The emphasis was on the slogan "Only Rain Down the Drain", which was the centerpiece of a broad media campaign when the decals were first introduced in 2004. The markers also include a number were illegal dumping can be reported. Installation at MS4 areas and throughout the City began in 2004 and has been ongoing. SFPUC re-inventoried MS4 areas in 2006 for deficiencies in curb marker coverage and found that 100% of the MS4 areas known to the SFPUC were marked.

In 2009, the SFPUC continued to oversee and manage installation of storm drain makers that educate residents about illegal dumping and encourage reporting of such activities. The drain markers read "No Dumping (Only Rain Down the Drain/Report Pollution Call 311)". See Figure 5 for a picture of the marker and a picture illustrating how it is generally installed on the curb by the storm drain.

Figure 5: No Dumping Drain Markers (plastic decals)

The SFPUC has continued a Quality Assurance/Quality Control (QA/QC) check of storm drains to document where No Dumping markers have been installed and to check for locations where they may have been damaged or removed. This is being done in conjunction with efforts to ensure all catch basins in the City are geo-located on the SFPUC Sewer System Map (using GPS units in the field).

San Francisco has approximately 23,000 catch basins and storm drains. Due to budgetary and staffing constraints only 12,362 curb markers have been installed throughout the City as of December 2009. SFPUC staff anticipates that it will take approximately four more years of dry season work to cover 100% of the remaining catch basins and storm drains. In 2009, the SFPUC replaced approximately 1,149 curb markers city-wide which had been flagged as missing or lost through normal wear and tear, vandalism or by gutter repair and replacement.

With respect to storm drains in MS4 areas of the City, it is a priority of the SFPUC to ensure that they have the No Dumping curb markers at this time and moving forward. The SFPUC can now identify on GIS maps which storm drains in MS4 areas have the No Dumping curb markers installed; note that a few MS4 storm drains are not able to have curb markers installed because they have drains which cannot be marked with the decal (i.e., no curb). Field survey work done in late 2009 of all MS4 areas revealed a few MS4 storm drains that are missing the No Dumping decals; these will be replaced in 2010.

In 2009, SFPUC also received ten requests from companies and neighborhood groups that wanted to install curb markers on their properties. SFPUC provided these groups with curb markers, glue and instruction manuals.

5.2.c Pet Waste Stations and Garbage Receptacles

Another element of the SFPUC IDDE program is ensuring that there are pet waste stations and garbage receptacles in areas by MS4 storm drains, particularly in areas where residents tend to walk their pets. A field survey of MS4 areas in 2004 identified the location of pet stations and garbage cans. More recent field survey work done in late 2009 of all MS4 areas has identified areas where additional pet waste stations and garbage receptacles may be needed. In 2010, SFPUC staff will meet with applicable City agencies (such as Recreation and Parks) to discuss ensuring that stations and garbage cans are added where needed.

The SFPUC also engages in education and outreach campaigns on the issue of proper pet waste disposal. Beginning in 2007, CSD staff initiated the SFPUC Pet Waste Campaign and made available free 100% biodegradable pet waste bags to residents (see image on next page), as well as providing a Pet Waste fact sheet explaining the importance of picking up after your pet for both public health and water pollution prevention reasons.

Throughout 2009, CSD staff worked to distribute these pet waste bags and fact sheets to San Francisco Animal Care and Control, as well as different dog-related groups and organizations in San Francisco. CSD also attended dog-related public events throughout the calendar year, distributing nearly 20,000 free pet waste bags and fact sheets to interested parties.

See Appendix E for a listing of the events where Pet Waste Bags were distributed in 2009 (e.g. Crissy Field's EarthStroll and SF Animal Care and Control's Pet Pride Day) and for a copy of the Pet Waste Flyer.

Free Pet Waste Disposal Bag Provided by SFPUC

5.2.d Complaint Response Process Improvement

In 2009, staff continued to use the CSD's Information Management Database System to track illicit discharge reports, calls received from the public, construction inspections, and stormwater inspections.

Staff continue to use the Service Request Form Module, which was an improvement instituted in mid-2009. The Service Request Form Module improved the earlier database tracking of violations and illicit discharge calls to CSD from the 311 dispatch call center by replacing two separate modules that had to be used previously (the Investigation Request Module and Information Request Module) with one, more complete module. Previously, both modules contained pertinent information; however staff had to access the information in two separate locations in the database. The Service Request Form Module has improved the monitoring of investigation calls and information requests by making all of the information available in one location thus making the information easier to access. For example, any illicit discharge report made to the CSD is entered as a new Service Request and any related information (inspection notes, photographs, emails, correspondence, notices of violation, etc) can be easily found because it has been tied to the unique Service Request Number and all of the information is contained in the Service Request Module linked to this number.

Easy access to full documentation related to each illicit discharge issue enables CSD to be more effective in enforcing the current sewer use ordinance and issuing notices of violations and fines, as appropriate.

Also, because the Citywide 311 call center is a crucial part of the SFPUC receiving reports of any potential illicit dischargers, CSD staff attends monthly meetings with the 311 call center staff and management in order to ensure calls are properly being routed and to refine call intake and routing procedures as needed.

In 2009, there were not reportable quantity incidents in the MS4 areas overseen by the SFPUC under the City's Phase II permit.

5.2.e Update Sewer Base Map

In 2009, the SFPUC continued to use Global Positioning System Technology (GPS) and Geographic Information Systems (GIS) in the QA/QC field verification and inventory of the City's catch basins and no dumping curb markers. Trimble GeoXH handheld GPS units are used by staff; these units which have an accuracy of +/- 2 feet in mapping the location of the curb markers and catch basins. Inspectors are able to add attribute data for the catch basins, including status of curb markers.

The SFPUC first created maps of the MS4 areas under the SFPUC jurisdiction[6] in 2003/2004 when preparing the San Francisco Stormwater Management Plan. The maps have since been revised in subsequent years and included in the Annual Reports submitted to the Regional Water Quality Control Board.

In 2009, the SFPUC completed a comprehensive re-assessment of all of the MS4 area maps with field visits to each location. Also, locations that had been identified as possible MS4 sites not previously mapped were also investigated. The field work resulted in the following changes to the list of MS4 areas under the SFPUC's Phase II General Permit:

- Addition of the following locations: Lake McNab (in McLaren Park); India Basin; Mountain Lake; and South Beach Harbor.
- Reclassifying the following as not being MS4 areas: A catch basin on 25th Avenue and structures at the ends of 16th/18th Avenue (Lobos Creek area).

Refer to Appendix E for copies of updated site maps for all MS4 areas under the SFPUC jurisdiction.

A write up of the additional findings during the field inspections (e.g. site best management practices and site drainage notes) can be found in Section 8 (Pollution Prevention/Good Housekeeping for Municipal Operations); the current MS4 areas in San Francisco are park and/or open space areas maintained by City departments (such as Recreation and Parks or the Department of Public Works).

[6] Those not under Port of San Francisco's jurisdiction.

5.2.f Municipal Code Review/Legal Authority

To effectively meet the Phase II General Permit requirements for three minimum control measures (Illicit Discharge Detection and Elimination; Construction Site Stormwater Runoff Control; and Post-Construction Stormwater Management in New Development & Redevelopment), the SFPUC must have the proper legal authority relative to stormwater controls (in areas such as inspection, new/redevelopment project review and enforcement). The approach taken by the SFPUC to ensure that it has adequate authority has been to assess its authority relative to stormwater from three separate perspectives: authority relative to IDDE, authority relative to construction site stormwater runoff control, and authority relative to post-construction stormwater control.

A memo on review of the municipal code and regulatory authority relative to implementing the SWMP was included in the 2006 SWMP Annual Report.

With respect to IDDE, the CSD determined that the current Sewer Use Ordinance provides the SFPUC with adequate authority at this time, therefore no changes to local ordinance are required or being pursued.

5.3 Measurable Goals Status Report

The summary table below presents status information on the Illicit Discharge Detection and Elimination (IDDE) measurable goals set forth in the SF SWMP (as summarized in SWMP Appendix F: Measurable Goals Summary Table).

Table 19: Status Summary of Illicit Discharge Detection and Elimination

SWMP TASK # (from SWMP Measurable Goals Table/Appendix F)	STATUS & DOCUMENTATION
3A: ILLICIT DISCHARGE DETECTION & ELIMINATION PROGRAM FOR MS4 AREAS (Gen Permit D.2.c.4) Continued implementation of current activities to detect and address non-stormwater discharges to the system (including illegal dumping) that are not authorized by a separate NPDES permit. Development and implementation of a program to ensure that the existing IDDE process addresses MS4 areas. Identify / evaluate existing related plans/programs/activities Measurable Goal(s): Report documenting review methods, results, and recommendations for changes (as necessary) Develop work plan for integrating plans/programs/activates with new MS4 areas Measurable Goal(s): Work plan for integrating plans/programs with new MS4 areas Implement revised D&E program processes to address MS4 areas Measurable Goal(s): Revised program/process with MS4 areas being addressed	**STATUS:** COMPLETED & ONGOING • In 2009, staff continued to implement its successful inspection and enforcement program. The city-wide 311 call center directed illicit discharge calls to CSD. • In 2009, a total of 601 Service Request calls were received by the CSD from the 311 call center. Of these calls, a total of 56 were pertinent to illegal dumping or illicit discharges into storm drains, as summarized below: – **Illegal Dumping:** 31 calls in 2009. – **Grease Complaints:** 11 calls in 2009. – **Construction Related Complaints:** 8 calls in 2009. – **Spill Reports:** 6 calls in 2009. • Some calls were coded "Other" because they related to issues such as dumped litter**,** trash pick-up, odor complaints, and tree-cutting complaints. These were re-routed by CSD to other City agencies that are assigned to address them given that they relate more to their core work. Some of these could relate to storm drain impacts (such as dumped litter), depending on the nature of the call and location of the incident. – **Others:** Calls regarding litter**,** trash pick-up, odors, and tree-cutting complaints routed to CSD which should have been sent to another agency. 88 calls in 2009. • The largest number of calls (400), however, was not related to illegal dumping but were reports of catch basins needing to be swept of leaves and debris during heavy rains (as part of the SFPUC "storm watch" program). Documentation: • See Appendix E for a copy of the Illicit Discharge Tracking Log listing all incidents of illicit discharges investigated by the CSD. This listing includes all Service Request, with the exception of those coded "Storm Watch" as these relate more to public calls of catch basins needing to be cleared of leaves or debris during heavy rains.

3B and 3C: SIGNAGE PROGRAM (Gen Permit D.2.c.1) 3B: Development of the content/educational message to be used in the illicit discharge Signage Program. Develop conceptual design for new signage Measurable Goal(s): Conceptual design Review / revise design Measurable Goal(s): Full design Fabricate signage Measurable Goal(s): Signage 3C: Continuation (and expansion as needed) of signage regarding no illegal dumping in applicable areas. Conduct needs survey Measurable Goal(s): Inventory/needs survey results Install signs Measurable Goal(s): #/% of signs installed; Change in # of illegal dumping incidents	**STATUS:** COMPLETED & ONGOING & ACTION NEEDED • Past work on this task included field work to verify that no dumping signs were in place in key locations around MS4 storm drains. No new signage needed to be developed as existing signage existed. • Field survey work done in late 2009 of all MS4 areas revealed, however, that some areas no longer have any dumping signage. In 2010 SFPUC staff will meet with applicable City agencies (such as Recreation and Parks) to discuss ensuring that such signage be replaced in strategic areas. **Action Needed in 2010:** ➢ SFPUC staff to meet with City agencies responsible for maintaining areas around MS4 storm drains to discuss replacing No Dumping signage and/or creation and installation of new signage
3D and 3E: STORM DRAIN MARKING DEVELOPMENT AND ONGOING PROGRAM (Gen Permit D.2.c.1) 3D: Development of the content/educational message to be used in the Storm Drain Marking Program Develop conceptual design Measurable Goal(s): Conceptual design Review / revise design Measurable Goal(s): Full design Purchase markers Measurable Goal(s): Drain markers produced 3E: Continuation (and expansion as needed) of a storm drain marking program regarding not dumping into storm drains and where complaints are to be reported. Develop conceptual design Measurable Goal(s): Conceptual design Review / revise design Measurable Goal(s): Full design Purchase markers Measurable Goal(s): Drain markers produced Identify / confirm storm drains Measurable Goal(s): Inventory Conduct marking Measurable Goal(s): #/% of marked storm drains in MS4 areas	**STATUS:** COMPLETED & ONGOING & ACTION NEEDED • SFPUC created the design of new plastic No Dumping decals in 2003 and began installing them throughout MS4 areas and City-wide starting in 2004. • SFPUC re-inventoried MS4 areas in 2006 for deficiencies in curb marker coverage and found that 100% of the MS4 areas were marked. • A field survey done in 2009 identified some MS4 areas where the curb markers are now missing. These will be replaced in 2010. • In 2009, CSD continued its Quality Assurance/Quality Control (QA/QC) check of the curb markers install at catch basins, as well as field verification of the catch basins as located in the Sewer System Map. • In 2009, SFPUC replaced approximately 1,149 curb markers that were flagged as missing or lost through normal wear-and-tear, vandalism or by gutter repair and replacement. Because of budgetary constraints, on 12,362 curb markers were installed as of December 2009. • In 2009, SFPUC received 10 ten curb marking requests from companies and neighborhood groups to install curb markers in their properties. **Action Needed in 2010:** ➢ In 2010, the SFPUC will revisit MS4 areas found to be lacking No Dumping curb markers during the field visits carried out in 2009 and will replace the markers.

3F and 3G: PET WASTE STATIONS and SOLID WASTE RECEPTACLES (Gen Permit D.2.c.1) 3F:: Continuation (and expansion as needed) of pet waste stations in applicable areas. Conduct current inventory & needs survey Measurable Goal(s): Inventory/survey results Fabricate / install stations Measurable Goal(s): #/% of stations; Frequency of resupply (indicating usage trends) 3G: Continuation (and expansion as needed) of program providing waste receptacles in applicable areas. Conduct current inventory & needs survey Measurable Goal(s): Inventory/survey results Install receptacles Measurable Goal(s): #/% of waste receptacles; Frequency of collection	**STATUS:** COMPLETED & ONGOING & ACTION NEEDED • A field survey of MS4 areas in 2004 identified the location of pet stations and garbage cans. • More recent field survey work done in late 2009 of all MS4 areas has identified areas where additional pet waste stations and garbage receptacles may be needed. • In 2009, CSD attended dog-related public events where staff distributed the free pet waste bags and fact sheets to interested parties. **Action Needed in 2010:** ➢ In 2010, SFPUC staff will meet with applicable City agencies (such as Recreation and Parks) to discuss ensuring that stations and garbage cans are added where needed.
3H: COMPLAINT RESPONSE PROCESS IMPROVEMENT (Gen Permit D.2.c.1) Design and implementation of an improved complaint response process for illegal discharges in applicable areas. Incorporate into this improved process handling calls routed through the Complaint/ Reporting Hotline detailed in Task 1G. Train staff Measurable Goal(s): Number / percentage of staff trained Respond to incidents Measurable Goal(s): # of reportable quantity incidents handle	**STATUS:** COMPLETED & ONGOING • In 2009, CSD staff continued to use the Information Management Database System to track illicit discharge reports, calls received from the public, construction inspections, and stormwater inspections. • CSD staff attends monthly meetings with the 311 call center staff and management in order to ensure calls are properly being routed and to refine call intake and routing procedures as needed. • In 2009, there were not reportable quantity incidents in the MS4 areas overseen by the SFPUC under the City's Phase II General Permit.

3I: UPDATE SEWER BASEMAP (Gen Permit D.2.c.2) Investigation, confirmation and updating of storm sewer base map showing the location of all outfalls and the names and locations of all waters of the US that receive discharges from those outfalls. Conduct survey / records review Measurable Goal(s): Inventory Create revised map Measurable Goal(s): Current map of MS4 areas	**STATUS:** COMPLETED & ONGOING • In 2009, the SFPUC completed a comprehensive re-assessment of all of the MS4 area maps and updated the list of MS4 areas under the SFPUC's Phase II General Permit program and produced new area maps. • The field work resulted in the following changes to the list of MS4 areas under the SFPUC's Phase II General Permit: – Addition of the following locations: Lake McNab (in McLaren Park); India Basin; Mountain Lake; and South Beach Harbor. – Reclassifying the following as not being MS4 areas: A catch basin on 25th Avenue and structures at the ends of 16th/18th Avenue (Lobos Creek area). • A write up of the findings during the field inspections with respect to site best management practices and site drainage notes can be found in Section 8 (Pollution Prevention/Good Housekeeping for Municipal Operations) as the current MS4 areas in San Francisco are park and open space areas maintained by City departments (such as Recreation and Parks or the Department of Public Works). Documentation: • Refer to Appendix E for all of the updated MS4 area maps.
3J: MUNICIPAL CODE REVIEW (Gen Permit D.2.c.3 & D.2.c.1) Effectively prohibit non-stormwater discharges Review Chapters of the SF Municipal Code to ensure that the City's authority includes the ability to effectively prohibit non-stormwater discharges into MS4 areas and to implement appropriate enforcement procedures and actions. Measurable Goal(s): Memo documenting review methods, results, and recommendations for changes (as necessary)	**STATUS:** COMPLETED • With respect to IDDE, the CSD has already determined that the current Sewer Use Ordinance provides SFPUC with adequate authority at this time, therefore no changes to local ordinances are required. • A memo on review of the municipal code and regulatory authority relative to implementing the SWMP was included in the 2006 SWMP Annual Report.

3K: REFINEMENT OF MEASURABLE GOALS Review goals for this control measure. With information gained (in program planning, working groups, work plan development, and implementation), revise and refine goals (as needed) to make them more measurable/numeric and to address both task completion and task effectiveness. Measurable Goal(s): Evaluation of Illicit Discharge Detection and Elimination goals and revised goals (where applicable)	**STATUS:** ONGOING & ACTION NEEDED The SFPUC proposes no revisions to the measurable goals for this Minimum Control Measure at this time. **Action Needed in 2010**: ➢ Revise the SWMP Tasks for the IDDE Minimum Control Measure (and their applicable measureable goals) to reflect the status of work already completed (for example: Rename Task 1 to read "Identification & Investigation of Illicit Discharges:; Remove tasks that have been completed and describe completed work in SF SWMP document; Update language of tasks that will be ongoing to better reflect ongoing nature of the work).

5.4 Proposed SWMP Amendments

The SFPUC recommends that the following amendments be made to the SF SWMP for the Illicit Discharge Detection And Elimination minimum control measure:

- Update the various Elements in the IDDE section of the SF SWMP to reflect work already completed.
- Revise the SWMP Tasks for the IDDE Minimum Control Measure (and their applicable measureable goals) to reflect the status of work already completed (for example: Rename Task 1 to read "Identification & Investigation of Illicit Discharges:; Remove tasks that have been completed and describe completed work in SF SWMP document; Update language of tasks that will be ongoing to better reflect ongoing nature of the work).
- Update the SWMP document to include the most current listing and maps of MS4 areas, as verified in the field work conducted in 2009.

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SECTION 6: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

6.1 Introduction

This section describes SFPUC's efforts during 2009 to ensure compliance with the requirements of the Phase II Statewide General Permit with regards to the Construction Site Storm Water Runoff Control minimum control measure. The General Permit requires the permitee to develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in land disturbances of greater than or equal to one acre.[7]

The current MS4 areas under the oversight of SFPUC for Phase II General Permit compliance (i.e. non-Port jurisdiction areas) are all park and/or open spaces that have not been impacted by construction activities. There has been construction, however, in areas that in the future will be taken over by the City and County of San Francisco, and SFPUC staff has been engaged in oversight of these, even though these project sites have construction stormwater permits issued to them directly by the State.

The SFPUC has a program in place for control and oversight of construction activities for disturbances equal to or greater than an acre in MS4 areas. The program requires that projects in MS4 areas that disturb 1 or more acres (or are part of a larger development that disturbs 1 or more acres), obtain coverage under the California State Water Resources Control Board General Permit for Discharges Associated with Construction Activity (Construction General Permit). Construction activities subject to the permit include clearing, grading, stockpiling, and excavation, and the general permit process involves:

1. Notification to state and local agencies of the proposed construction activity through a Notice of Intent (NOI).
2. Filing of a permit fee.
3. Development of a Stormwater Pollution Prevention Plan (SWPPP) to minimize pollutant contact with stormwater runoff.
4. Implementation of specific monitoring efforts.

The required Stormwater Pollution Prevention Plan is reviewed by trained inspectors of the SFPUC Collection System Division and construction site inspections are conducted to ensure best management practices detailed in SWPPPs are in place. SFPUC staff also provides educational materials and guidance on controlling erosion and sediment runoff construction sites.

Refer to Appendix F for copies of the SFPUC web page that details these requirements and the web page that contains the *Keep It On Site!* pollution prevention guide for construction activities provided by the SFPUC.

[7] Construction activity disturbing less than one acre must be address by the program if that construction activity is part of a larger common plan of development or sale that would disturb once acre or more.

6.2 Progress on Work Plan Tasks

Due to the fact that current MS4 areas are all park and/or open spaces that are not being impacted by construction activities, the SFPUC focused its resources in 2009 on the following program areas:

- Inspecting construction sites in MS4 areas not currently under the City's jurisdiction, but which will eventually become City property (ex: the Mission Bay redevelopment area) – these sites have filed for a NPDES General Construction Permit with the State and CSD staff acts as the local enforcement agency to ensure the required SWPPP is being properly implemented;
- Responding to any reports or complaints regarding runoff from construction sites;
- Reviewing existing construction site inspection procedures and training materials in preparation for introduction of the proposed ordinance on Stormwater Discharge Controls for Construction Sites; and
- Establishing key contacts in the City's Planning Department and Department of Building Inspection in order to facilitate the process of adopting and implementing the proposed ordinance.

6.3 Construction Site Inspections, Tracking, Training and Enforcement

In 2009, SFPUC staff continued to inspect construction sites in the combined sewer system areas of the City and in the few MS4 areas that are not currently under the City's jurisdiction, but which will eventually become City property. These inspections were carried out in coordination with the State and Regional Water Quality Control Board staff; the sites have filed for a NPDES General Construction Permits with the State and CSD staff acts as the local enforcement agency to ensure the required Storm Water Pollution Prevention Plan is being properly implemented.

In 2009, a total of 28 construction site inspections were completed by CSD staff. Of these inspections, 8 were in MS4 areas which in the future will fall under the City's jurisdiction:

- Hunter's Point Parcel A Redevelopment Project (US Navy) – 4 inspections
- Mission Bay Redevelopment Project (Catellus Development Corp) – 4 inspections

At construction site inspections, the CSD inspector verified the contractor's use of erosion and sediment control BMPs and the application and use of sediment and erosion control devices, as stated in the projects' SWPPP.

Review of construction project SWPPP

Confirm BMPs being applied at site

Hunter's Point Parcel A: Hunters Point Shipyard is a former military base undergoing site remediation to prepare the land for transfer to the City and County of San Francisco. The redevelopment project was divided up into various parcels, and Parcel A was further divided into Parcel A' and Parcel A. Parcel A' is currently undergoing construction, including placement of foundation slabs, utility lines and street curbs. Parcel A will remain as a buffer between Parcel A' and more contaminated parcels until the contaminated parcels are cleaned up.

Parcel A' operates under its own NPDES General Construction Permit filed with the SWRCB. CSD staff acts as the local enforcement agency to ensure the site has properly implemented its SWPPPP. CSD inspectors regularly conduct routine inspection for construction BMP implementation.

Construction BMP's in Place at Hunter's Point Parcel A'

Mission Bay Redevelopment Project: Mission Bay Redevelopment Project is nearly complete. The development included construction of various buildings to house UCSF facilities, condominiums, apartments, parking garages, commercial and residential complexes. Construction of several new buildings is ongoing.

One construction project site that was inspected seven times in 2009, although it is in an area served by the City's combined sewer system, was the Trans Bay Cable Terminal Project. This project is located in the southern part of the City on Illinois Street between 23rd Street and 24th Street. Current work involves construction of buildings and facilities to house the high-voltage direct current (HVDC) electric transmission cable converter power station. This station would connect San Francisco with power plants in the East Bay. This site is primarily on Port property, however, the majority of the storm water flows onto City property and into the combined sewer system. This site was of concern to CSD with respect to storm water runoff because the eastern end of the project site is right on San Francisco Bay.

At construction sites located in the combined sewer system, in addition to monitoring compliance with BMPs and SWPPP controls, SFPUC inspectors also monitored any applicable wastewater discharges into the City's combined sewer system (e.g. batch discharges permitted through the SFPUC CSD).

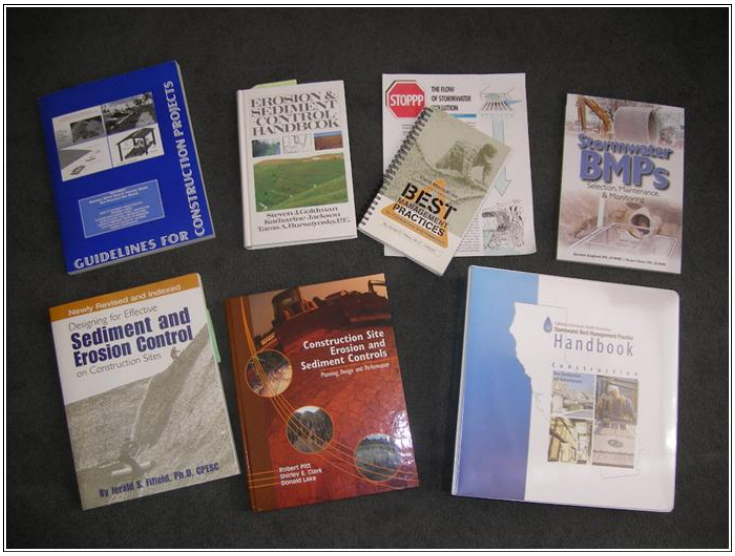
Site/Inspection Tracking: Refer to Appendix F for a summary table listing the large construction project site inspections done, the Construction Site Assessment Form used, the BMPs list used by CSD inspectors, and print outs of related SFPUC web pages. Inspections are entered into the CSD inspection database for easy tracking of each construction site and access to inspection records and all related documentation.

Note that Appendix E provides a listing of all illicit discharge related Service Request calls that CSD inspectors responded to and some of these are coded as being "construction" related – these refer to small construction projects (ex: a garage under construction) for which there has been a report of construction related run off or debris entering the City's combined sewer system. This same Service Request response system will be used by the SFPUC when MS4 areas not currently under the City's jurisdiction are taken over by the City (ex: Mission Bay South).

Enforcement: The SFPUC's program to control construction site runoff is effective not only because of site inspections, but also because the enforcement program includes the option to impose fines on projects found to be out of compliance.

For example, the construction site below was fined several thousand dollars for lack of sediment controls and illicit discharges to the City's combined sewer system.

Training: Training is provided for construction sites on erosion and sediment controls detailing how to keep wastes on site. The *Keep It On Site!* pollution prevention guide for construction activities provided by the SFPUC, and other reference materials shown below, are the primary resources used. Refer to Appendix F for a full copy of the *Keep It On Site!* guide.



6.4 Municipal Code Review/Legal Authority

To effectively meet the Phase II General Permit requirements for three minimum control measures (Illicit Discharge Detection and Elimination; Construction Site Stormwater Runoff Control; and Post-Construction Stormwater Management in New Development & Redevelopment), the SFPUC must have the proper legal authority relative to stormwater controls (in areas such as inspection, new/redevelopment project review and enforcement). The approach taken by the SFPUC to ensure that it has adequate authority has been to assess its authority relative to stormwater from three separate perspectives: authority relative to IDDE, authority relative to construction site stormwater runoff control, and authority relative to post-construction stormwater control.

A memo summarizing the review done on municipal code and regulatory authority relative to implementing the SWMP was included in the 2006 SWMP Annual Report. With respect to construction site stormwater runoff controls, the CSD determined that current local codes (Public Works Code Articles 15 & 17 and Building Code Chapters 13 and 33) provide the City with legal authority to control construction site runoff. Additionally, the San Francisco Municipal Code requires that all dischargers comply with all state and federal orders issued to the City including all the City's NPDES permits. Also Public Works Code, Article 4.1 (Sewer Use Ordinance) prohibits the discharge of sand, gravel, and dirt, and other pollutants that would violate the City's federal and state discharge permits. See Appendix F for related documentation (Existing City Code Sections Related to Construction Site Runoff).

In addition to the existing legal authority, the SFPUC Collection System Division has drafted a proposed Construction Site Runoff Control Ordinance which will provide even more control and oversight to the SFPUC and more prescriptive requirements of construction sites in both the MS4 and combined sewer areas of San Francisco. The ordinance was not introduced in 2009 because other legislative priorities took precedent – specifically the Storm Water Ordinance which addresses Post-Construction controls in new/redevelopment, an area in which the SFPUC did not have sufficient legal authority. With the Post-Construction controls legislation now adopted, the SFPUC will move forward in 2010 to introduce the proposed Construction Site Runoff Control Ordinance.

Past annual reports have provided a detail overview of how the proposed Construction Site Runoff Control Ordinance will integrate with other existing elements of the SFPUC's construction site run off control program. Therefore this annual report will simply highlight three key elements of the proposed Construction Site Runoff Control Ordinance: SFPUC will have greater control over being notified of potential construction projects in MS4 areas due to permitting and fee requirements; construction projects will be required to file SWPPPs or Construction Site Runoff Control Plans with the SFPUC; and there will be greater public awareness of construction site runoff issues due to requirements that construction site post signs indicating where the public can call to report runoff of sediment or debris from construction sites. Refer to Appendix F for a summary list of the proposed mandatory construction site requirements included in the draft ordinance and for a full draft of the proposed Construction Site Runoff Control Ordinance

CSD staff is prepared for continued and ongoing inspections of construction sites. Two CSD inspectors became Certified Inspector of Sediment and Erosion Control after completing training in June 2008 by CISEC, Inc. CSD staff attend the annual StormCon conference each year to remain current with construction site run off control information. Also, in September 2009, SFPUC staff participated in a CASQA webcast reviewing the requirements of the new 2009 Construction General Permit.

6.5 Measurable Goals Status Report

The summary table below presents status information on the Construction Site Stormwater Runoff Control measurable goals set forth in the SF SWMP (as summarized in SWMP Appendix F: Measurable Goals Summary Table).

Table 20: Status Summary of Construction Site Stormwater Runoff Control

SWMP TASK # **(from SWMP Measurable Goals Table/Appendix F)**	**STATUS & DOCUMENTATION**
4A: MUNICIPAL CODE REVIEW (Gen Permit D.2.d.1) Review of the SF Municipal Code to ensure that the City's authority includes the ability to require erosion and sediment controls, as well as sanctions, or other effective mechanisms, to ensure compliance, to the extent allowable under State or local law.	**STATUS:** COMPLETED & ONGOING & ACTION NEEDED • A memo summarizing the review done on municipal code and regulatory authority relative to implementing the SWMP was included in the 2006 SWMP Annual Report. With respect to construction site stormwater runoff controls, the CSD determined that current local codes (Public Works Code Articles 15 & 17 and Building Code Chapters 13 and 33) provide the City with legal authority to control construction site runoff. Additionally, the San Francisco Municipal Code requires that all dischargers comply with all state and federal orders issued to the City including all the City's NPDES permits. Also Public Works Code, Article 4.1 (Sewer Use Ordinance) prohibits the discharge of sand, gravel, and dirt, and other pollutants that would violate the City's federal and state discharge permits. See Appendix F for related documentation. • In addition to the existing legal authority, the SFPUC has drafted a proposed Construction Site Runoff Control Ordinance which will provide even more control and oversight to the SFPUC and more prescriptive requirements of construction sites in both the City's MS4 and combined sewer areas. • The ordinance was not introduced in 2009 because other legislative priorities took precedent – specifically the Storm Water Ordinance which addresses Post-Construction controls in new/redevelopment, an area in which the SFPUC did not have sufficient legal authority. With the Post-Construction controls legislation now adopted, the SFPUC will move forward in 2010 to introduce the proposed Construction Site Runoff Control Ordinance. Documentation • Appendix F has a listing of existing City code sections related to construction site run off control, a summary list of the proposed mandatory construction site requirements included in the draft ordinance, and a full draft of the proposed Construction Site Runoff Control Ordinance. **Action Needed in 2010**: ➢ Introduce Construction Site Runoff Control Ordinance for adoption.

4B: TRAINING ON EROSION & SEDIMENT CONTROLS **(Gen Permit D.2.d.2)** Dissemination of Keep It On Site guide for construction sites — the guide addresses how construction sites can minimize erosion and sediment runoff. Revise existing version of the guide as needed. To be done in conjunction with site inspections and/or contractor workshops.	**STATUS:** COMPLETED & ONGOING The SFPUC carried out the following tasks to achieve this goal: • The Keep It On Site guide was handed out by the CSD inspector at all construction sites during site inspections. • Continued to utilize the oracle-based Construction Site Stormwater Inspection Module. • The lead construction site inspector for the SFPUC attended the 2009 StormCon conference to remain current with construction site runoff control information. • In September 2009, SFPUC staff participated in a CASQA webcast reviewing the requirements of the new 2009 Construction General Permit. See Appendix F for a copy of the webcast agenda. • Two CSD inspectors are Certified Inspectors of Sediment and Erosion Control. Documentation • Appendix F contains the Keep It On Site guide for construction sites. • Appendix F contains the inspection form that is part of the digital tracking system and the BMP's required for each construction activity.
4C: TRAINING ON SITE WASTE CONTROLS (Gen Permit D.2.d.3) - To be done in coordination with E&S Controls 4B Dissemination of Keep It On Site guide for construction sites — the guide addresses how construction sites can control wastes to minimize water runoff pollution. To be done in conjunction with 4B. This task pertains to proper waste controls, whereas 4B pertains to erosion & sediment controls.	**STATUS:** COMPLETED & ONGOING • Distributing materials is a routine part of any action. When staff inspects a site, they hand out copies of the Blueprint for a Clean Bay and Keep it Onsite. Documentation • See Appendix F for a copy of the Keep It On Site guide for construction sites.

4D: PROJECT TRACKING RE: EROSION & SEDIMENT (BMP conditioning / Phase II Statewide General Permit coverage / SWPPP / grading plan review) -- To be done in coordination with Waste Controls (4E) Review (and revise as needed) existing process for identification and tracking of construction projects to inspect and enforce appropriate erosion and sediment control BMPs. To be done in with 4E.	**STATUS:** COMPLETED & ONGOING Currently there is no construction is existing MS4 areas. The Regional Board does notify CSD, as the local enforcement agency, when it receives notices for projects greater than 1 acre or is contacted by a developer. The CSD inspects these construction sites for compliance with controls and SWPPP implementation. • Staff has used construction site inspection forms and enters the findings into an on-line database, along with electronic copies of related documents. Each construction site has a unique ID number. • A flow chart was created by SFPUC staff, working with City Planning and DBI, to ensure that construction project in MS4 areas would be referred to SFPUC staff. This will likely only be triggered once the City takes ownership of MS4 areas such as Mission Bay, since all existing MS4 areas are small discrete locations in parks or open spaces. Documentation • Appendix F has draft digital tracking forms to be used in the construction site inspections. • See tracking log for 2009 construction site inspections in Appendix F.
4E: PROJECT TRACKING RE: WASTE CONTROLS (BMP conditioning / Phase II Statewide General Permit coverage / SWPPP review) - To be done in coordination with 4D Review (and revise as needed) existing process for identification and tracking of construction projects to inspect and enforce appropriate waste controls for materials (such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary wastewaters). This BMP will be done in conjunction with 4D (this task pertains to focus on proper waste controls, whereas 4D pertains to erosion & sediment controls).	**STATUS:** COMPLETED & ONGOING • See task 4D.
4F: WASTE REDUCTION, REUSE & RECYCLING INFORMATION (Gen Permit D.2.d.3) Evaluate (and improve as needed) existing requirements for contractors' site operators to implement solid & hazardous waste reduction, reuse and recycling at construction sites.	**STATUS:** COMPLETED & ONGOING • CSD has published a brochure titled "Keep it On Site" that covers fundamental construction site BMP's for pollution prevention, sediment and erosion control that reflect the proposed construction site regulations (See Appendix F). Once the proposed Construction Site Runoff Control Ordinance is adopted and in effect, these brochures will be offered at DBI's permit windows.

4G: ADMINISTRATIVE PROCESS (Gen Permit D.2.d.4) - procedure/form review, revision, and training Assess and improve (as needed) current site plan review process for identification, oversight and enforcement of stormwater runoff pollution prevention at construction sites that fall under the purview of the SWMP.	**STATUS:** COMPLETED & ONGOING • While the draft Construction Site Runoff Control Ordinance has not yet been adopted, SFPUC has put in place interim protocols for communication with City Planning and DBI to ensure that construction projects in MS4 areas are identified, as well as construction projects that trigger other SFPUC oversight roles (such as relative to the Green Building Ordinance).
4H: RESPONSE PROCESS REVIEW (Gen Permit D.2.d.5) Assess (and revise as needed) current procedures for receipt and consideration of information submitted by the public regarding compliance of construction sites with required BMPs and programs to reduce stormwater runoff pollutants.	**STATUS:** COMPLETED & ONGOING • Public calls are routes from the citywide 311 call center when they have to do with construction site runoff issues. Monthly meetings are held by the 311 call center, with representatives of many city departments; CSD staff attends to ensure calls are being properly routed and procedures are effective. • When construction site runoff complaints are received by CSD, inspectors conduct an investigation and record their report (findings, actions taken, related documentation) in the CSD database. • Refer to Appendix F for a list of Service Requests responded to by CSD staff related to public calls about construction site runoff.
4I: SIGNAGE (Gen Permit D.2.d.5) Design, produce and install signs for posting at construction sites about required stormwater runoff pollution prevention BMPs and providing a contact number for the public to call in observed violations.	**STATUS:** COMPLETED & ONGOING • Staff has developed a conceptual design for signage at construction sites which will inform the public about required stormwater runoff pollution prevention BMPs. The signage, which will be required when the proposed Construction Site Runoff Control Ordinance is adopted, will provide contact information for reporting observed violations.
4J: COMPLAINT RESPONSE (Gen Permit D.2.c.5) Review (and revise as needed) current procedure for receiving, handling and tracking complaints received about construction sites violating stormwater runoff pollution prevention requirements.	**STATUS:** COMPLETED & ONGOING • With the launching of a single Service Request Module in the CSD database, the follow up by CSD inspectors for each complaint received about construction sites violating stormwater runoff requirements can be easily tracked with the unique Service Request number that is assigned to each complaint and the associated investigation. The database can also now be used to track opened and closed complaints (with regards to completion of required follow up actions).

4K: INSPECTION/ENFORCEMENT PROCEDURES REVIEW (General Permit sec. D.2.d.6) Review (and revise as needed) current procedure for construction site inspections and enforcement of requirements of control measures to reduce pollutants in stormwater runoff.	**STATUS:** COMPLETED & ONGOING • The SFPUC continues to inspect construction sites in MS4 areas and enforce pollution control requirements, as described in the Status section for Tasks 4A, 4B and 4D of this table.
4L: INSPECTIONS (General Permit sec. D.2.d.6) Conduct construction site inspections to enforce implementation of BMPs to reduce pollutants in site water runoff.	**STATUS:** COMPLETED & ONGOING In 2009, staff inspected 28 construction project sites. Documentation • Appendix F contains a copy of summary of construction project site inspections.
4M: WORKSHOPS (General Permit sec. D.2.d.6) Conduct workshops to train DPW resident engineers and construction site inspectors.	**STATUS:** COMPLETED & ONGOING Once the proposed Construction Site Runoff Control Ordinance is adopted and in effect, CSD sponsored training will be provided on a regular basis to contractors. Additional training sessions, or an online training with a quiz module may be offered if demand exceeds expectations.
4N: REFINEMENT OF MEASURABLE GOALS Review goals for this control measure. With information gained (in program planning, working groups, work plan development, and implementation), revise and refine goals (as needed) to make them more measurable/numeric and to address both task completion and task effectiveness.	**STATUS:** COMPLETED & ONGOING & ACTION NEEDED The SFPUC proposes no revisions to the measurable goals for this Minimum Control Measure at this time. **Action Needed in 2010**: ➢ Revise the SWMP Tasks for the Construction Site Stormwater Runoff Control minimum control measure (and applicable measureable goals) to reflect the status of work already completed and to streamline how all of the elements of the SFPUC's Construction Site Runoff Control Program are presented.

6.6 Proposed SWMP Amendments

The SFPUC recommends the following amendments be made to the SF SWMP Construction Site Stormwater Runoff Control minimum control measure:

- Revise the SWMP Tasks for the Construction Site Stormwater Runoff Control minimum control measure (and applicable measureable goals) to reflect the status of work already completed and to streamline how all of the elements of the SFPUC's Construction Site Runoff Control Program are presented.

SECTION 7: POST-CONSTRUCTION CONTROLS IN NEW DEVELOPMENT AND REDEVELOPMENT

7.1 Introduction

This section describes the SFPUC's activities during 2009 to ensure compliance with the Post Construction Control minimum control measure requirement of the Phase II General Permit. The permit requires development of a program to track and oversee the development and redevelopment of projects that disturb one or more acres of land and ensure that these developments have properly installed controls that would prevent or minimize water quality impacts.

The SFPUC's Urban Watershed Management Program (located in the Wastewater Enterprise Planning and Regulatory Compliance Division) is responsible for program development and implementation of the post-construction controls throughout the MS4 *and* combined sewer areas of San Francisco. The SFPUC's approach is to post-construction control requirements and a Low Impact Design (LID) program city-wide (for both MS4 *and* combined sewer areas), because even in combined sewer areas of the City the program will provide improvements to the system in the form of reduced combined sewer overflows and community acceptance of decentralized water systems in their neighborhoods. SFPUC's program goes beyond the minimum requirements of the Phase II General permit -- the SFPUC has reduced the minimum threshold for development and redevelopment projects that must meet stormwater management performance measures on site (preferable using green infrastructure) to 5,000 square feet or more.

7.2 Progress on Work Plan Tasks

In 2009, there were no new or redevelopment projects constructed in current MS4 areas, however, significant planning for future development areas was taking place. SFPUC staff tracked and commented on planning discussions relative to current MS4 Areas (such as Lake Merced) and MS4 areas which in the future will be under the City's jurisdiction (such as Mission Bay, Treasure Island, Hunters Point Shipyard and the Candlestick Point area).

A key achievement in 2009 was completion of the *San Francisco Stormwater Design Guidelines (Guidelines)*, which provide developers in both MS4 and combined sewer areas with a wide suite of design solutions that will enable them to achieve compliance with stormwater management requirements. Examples include rainwater harvesting, rain gardens, green roofs, and permeable paving. Also completed and presented to the SFPUC Commission was a San Francisco Stormwater Ordinance, which will ensure that the *Guidelines* are successfully implemented; SFPUC and Port staff collaborated on a Stormwater Ordinance, which will become codified in the San Francisco Public Works Code. The *Guidelines* and the proposed Stormwater Ordinance were presented to the SFPUC Commission in December 2009; the *Guidelines* were then adopted in the first quarter of 2010 and at that time the ordinance was referred to the San Francisco Board of Supervisors for adoption. More details on the *Guidelines* and the Stormwater Ordinance are provided in this section. Refer to Appendix G for copies of the *Guidelines*, the SFPUC Commission package, and a copy of the Stormwater Ordinance.

Staff continued to be engaged in ensuring stormwater controls were being integrated into development projects under the already-existing City's Green Building Ordinance (which was passed in November 2008, with implementation beginning in 2009). All projects of a certain type that are subject to the Green Building Ordinance must manage stormwater onsite and achieve either

LEED Sustainable Site Credit 6.1 (for combined sewer areas) or LEED Sustainable Site Credit 6.2 (for separate sewer areas).

SFPUC staff worked closely with colleagues at SF Environment (SFE) and the Department of Building Inspection (DBI) to create plan review procedures for Stormwater Control Plans (SCPs), which will be required under the Stormwater Ordinance. The objective was to tie into the plan review system already being set up to ensure compliance with the Green Building Ordinance and to avoid creating redundancy in stormwater management performance measures and in the SCP review process.

SFPUC staff also continued to provide technical assistance to other City agencies to help them implement projects that integrated stormwater management in their design and development; these projects were diverse and included new libraries, traffic calming efforts, pedestrian realm improvements, and creation of green schoolyards.

Post-construction stormwater controls also continued to be integrated into the SFPUC's Sewer System Master Plan, under the direction of Urban Watershed Management Program staff. Modeling was done on the effects that Low Impact Design (LID) would have on stormwater flows to the combined sewer system. The modeling included assumptions that LID would be implemented by the private sector (through compliance with the *Stormwater Design Guidelines* and Stormwater Ordinance), and that there would be LID incorporated into capital projects led by the SFPUC, in City streetscape improvements, and resulting from SFPUC-led programs (such as downspout disconnections taking place as residents and businesses implement rainwater harvesting).

See Appendix C for pages from the SFPUC website that related all aspects of implementing the post-construction controls minimum control measures.

7.2.a San Francisco Stormwater Design Guidelines

SFPUC staff and Port of San Francisco staff have been collaborating for several years in developing the *San Francisco Stormwater Design Guidelines (Guidelines)*. The *Guidelines* provide developers in both MS4 and combined sewer areas with a wide suite of design solutions that will enable them to achieve compliance with stormwater management requirements; examples include rainwater harvesting, rain gardens, green roofs, and permeable paving. The *Guidelines* offer five tools to help project developers achieve compliance:

- A step-by-step guide describing how to manage stormwater on site;
- A set of stormwater Best Management Practices (BMP) Fact Sheets;
- A vegetation palette to assist in BMP-appropriate plant selection;
- Sizing calculators to determine the required size of each BMP; and
- Maintenance checklists explaining the types and frequencies of the maintenance activities associated with each BMP.

The *Guidelines* were published in November 2009, presented to the SFPUC Commission in December 2009, and adopted by the Commission in early 2010. This section details efforts carried out by SFPUC staff to achieve this milestone – including completion of related environmental review; extensive public outreach; improvements made to the stormwater BMP fact sheets and BMP practices sizing calculator; completion of the Vegetation Palette and Stormwater Control Plan Template; and interagency coordination efforts. Refer to Appendix G for copies of the *Guidelines.*

Environmental Review: A Class 8 Categorical Exemption was issued for the *Guidelines* by the Major Environmental Analysis Division of the San Francisco Planning Department on 12/2/09.

Public Outreach: The SFPUC and the Port jointly completed 18 activities to educate or seek feedback from stakeholders. See Table 21 (Stormwater Design Guidelines Public Outreach 2009) for details.

Table 21: Stormwater Design Guidelines Public Outreach (2009)

Date	Outreach Method	Target Audience
January 8, 2009	Interdepartmental/ Targeted Community	San Francisco Department of Environment Integrated Pest Management Program staff and stakeholders.
January 22-23, 2009	Technical Workshop	Low Impact Design technical workshop targeting design and engineering community. Presentations can be found online at: http://sfwater.org/detail.cfm/MC_ID/14/MSC_ID/361/MTO_ID/541/C_ID/4579/ListID/2
January 30, 2009	Interdepartmental	SFUSD project managers and architects
February 18, 2009	Targeted Stakeholder	Green Building Professionals Guild, general public, designers, builders, contractors, green business owners
February 26, 2009	Publish *Guidelines* for Public Review	Design, engineering and development community, environmental stakeholders, and general public
March 17, 2009	Port Advisory Committee	Fisherman's Wharf Waterfront Advisory Committee: local businesses, citizens and environmental community
March 24, 2009	Targeted Stakeholder	Pacific Energy Center Water Conservation Showcase: general public, water conservation community, green building community
April 29, 2009	Targeted Stakeholder	Building Owners and Managers Association
May 1, 2009	Interdepartmental	SFPUC Sewer System Master Plan project team
May 27, 2009	Port Advisory Committee	Southern Waterfront Advisory Committee: Bayview-Hunters Point local businesses, citizens and environmental community
June 5, 2009	Targeted Stakeholder	Sustainable Building Advisor Program: general public, designers, contractors, green business owners
June 8, 2009	Targeted Stakeholder	SF Planning+Urban Research Association: brownbag presentation to planning, policy, design and development professionals
July 24, 2009	Interdepartmental/ Targeted Stakeholder	Street Parks Workshop: SFDPW staff and general public
September 15, 2009	Port Advisory Committee	Fisherman's Wharf Waterfront Advisory Committee: local businesses, citizens and environmental community
September 24, 2009	Interdepartmental	SFDPH Healthy Planning Research and Tools: SFDPH staff
October 2, 2009	Targeted Stakeholder	West Coast Green: general public, designers, builders, contractors, green business owners
October 13, 2009	Port Commission Mtg	Informational Update to Port Commission
November 4, 2009	Targeted Stakeholder	Green Roofs for Healthy Cities: general public, designers, builders, contractors, green business owners
December 8, 2009	SFPUC Commission Meeting	Presentation of *Guidelines* to the SFPUC Commission, along with the proposed San Francisco Stormwater Ordinance (it was referred to SF Board of Supervisors for public comments and adoption).

Guideline Drafts and Improvements: A second draft of the full *Guidelines* document was released for peer review February 2009 and comments were incorporated into the document. Significant improvements were made to the appendices to the *Guidelines*. Comments from technical reviewer and other editors were incorporated into the Stormwater Best Management (BMP) Practices Fact Sheets (Appendix A to the *Guidelines*) and the BMP Sizing Spreadsheet (Appendix B to the *Guidelines*). The Stormwater Control Plan Template (Appendix C to the *Guidelines*) and the Vegetation Palette (Appendix D to the *Guidelines*) were also completed. The *Guidelines* appendices are key tools that will significantly assist users in implementing stormwater management requirements.

Interagency Coordination & Project Review Processes: In 2009, staff also made progress in collaborating with other City agencies to prepare for the implementation of the *Guidelines*. Staff worked with DBI and SFE to understand how project review processes for the *Guidelines* could be best integrated into plan review processes already being established for San Francisco's new Green Building Ordinance (GBO)[8], which became effective in November of 2008. The GBO requires stormwater management throughout the City's combined and separate sewer areas. The performance measures put forward by the GBO are from the Leadership in Energy and Environmental Design (LEED) system; LEED Credits Sustainable Sites 6.1 (Stormwater Quantity) and SS6.2 (Stormwater Quality). The SFPUC expects that when the Stormwater Ordinance is adopted by San Francisco in 2010 (refer to Section 7.2.b Legal Authority), these project review processes will be modified and improved upon to address the new requirements (such as submission and review of Stormwater Control Plans).

Adoption of the *Guidelines* by the SFPUC Commission: On December 8, 2009, staff brought the *Guidelines* before the members of the SFPUC Commission. While the response was generally positive, the Commissioners requested more time to become familiar with the material. The *Guidelines* were be adopted by the Commission in the first quarter of 2010 and the Commissioners referred the Stormwater Management Ordinance (discussed in Section 7.2.b) to the San Francisco Board of Supervisors for adoption. Important next steps for the *Guidelines* are continued outreach to the design and development community on how to complete a Stormwater Control Plan, testing the project review process that staff has worked to create, identifying project review staff, and testing the project inspection processes put forward in the *Guidelines*.

7.2.b Legal Authority

To effectively meet the Phase II General Permit requirements for three minimum control measures (Illicit Discharge Detection and Elimination; Construction Site Stormwater Runoff Control; and Post-Construction Stormwater Management in New Development & Redevelopment), the SFPUC must have the proper legal authority relative to stormwater controls (in areas such as inspection, new/redevelopment project review and enforcement). The approach taken by the SFPUC to ensure that it has adequate authority has been to assess its authority relative to stormwater from three separate perspectives: authority relative to IDDE, authority relative to construction site stormwater runoff control, and authority relative to post-construction stormwater control. A memo on review

[8] GBO: http://www.sfenvironment.org/downloads/library/sf_green_building_ordinance_2008.pdf.

of the municipal code and regulatory authority relative to implementing the SWMP was included in the 2006 SWMP Annual Report.

With respect to Post-Construction Stormwater Management in New Development & Redevelopment, the SFPUC determined that additional regulatory authority should be obtained in order to establish an administrative framework that would ensure that built projects reduce stormwater impacts and control runoff. As described in the section above on the *San Francisco Stormwater Design Guidelines*, SFPUC staff has used the Green Building Ordinance as a vehicle for mandating stormwater management in both the separate and combined sewer areas.

However, because not all projects over 5,000 square feet trigger the LEED requirements of the Green Building Ordinance, and because the Green Building Ordinance does not establish a framework for project review, inspection, and enforcement, SFPUC staff elected to write an ordinance that would more fully support the post-construction stormwater control program. SFPUC and Port staff partnered to complete a Stormwater Management Ordinance for San Francisco that compliments and expands upon the Green Building Ordinance.

Stormwater Management Ordinance: The Stormwater Management Ordinance was completed in 2009 and its main objective is to ensure that the previously discussed *Stormwater Design Guidelines* are successfully implemented. To meet this objective, the ordinance does the following:

- Establishes thresholds for compliance with the *Guidelines*;
- Requires project developers to adhere to all requirements in the *Guidelines* and submit a Stormwater Control Plan (SCP) for review;
- Identifies prohibited discharges to the SFPUC and Port stormwater collection systems;
- Establishes ongoing maintenance and inspection requirements for completed projects; and
- Establishes an administrative framework for enforcement and cost reimbursement.

SFPUC and Port staff collaborated on a Stormwater Ordinance, which will be codified in the San Francisco Public Works Code.

The proposed Stormwater Management Ordinance, along with the *Stormwater Design Guidelines,* was presented to the SFPUC Commission on December 8, 2009. Commissioners requested more time to become familiar with the material and subsequently the *Guidelines* were be adopted by the Commission in the first quarter of 2010. At this same meeting, the Commissioners referred the Stormwater Management Ordinance to the San Francisco Board of Supervisors for adoption.

Investigating Financial Incentives: In addition to legal authority to require post-construction controls, SFPUC staff has been investigating the feasibility of using the SFPUC's authority to set rates as a way of incentivizing stormwater controls. Staff is collaborating with an SFPUC-wide analysis of water/sewer rates and has engaged a consultant to analyze options related to financial charges or reductions related to changes in impervious surfaces.

7.2.c Technical Assistance

SFPUC staff continues to offer technical assistance to designers, engineers, developers, and homeowners who are implementing post-construction stormwater management measures. SFPUC staff offers assistance to project proponents working at a variety of scales, from a single family homeowner retrofitting their home to use rainwater for toilet flushing and laundry, to multi-firm

design teams creating stormwater master plans for San Francisco's redevelopment areas, such as Treasure Island.

In giving technical assistance, SFPUC staff attempts to convey the multiple opportunities that LID offers not only for stormwater management, but also for neighborhood improvement, urban design innovation, and habitat creation. Table 22 lists active projects and plans that have sought technical assistance from SFPUC staff to implement stormwater management into the designs of these projects.

Table 22: Stormwater Technical Assistance (2009)

Park Merced and San Francisco State	SFPUC continues to provide technical assistance to the developers at Park Merced and San Francisco State to ensure that stormwater is thoughtfully integrated into the redevelopment of these large properties.
Schlage Lock Redevelopment Area	SF Planning, SF Redevelopment Agency and the local neighborhood are collaborating to develop sustainability guidelines for the new development area and participate in a LEED for Neighborhood Development Pilot project.
Mission Public Realm Plan	These meetings were to assist the Planning Department in their efforts to develop a public realm plan that incorporates stormwater best management practices.
Cesar Chavez LID Project	These meetings created a pilot project to integrate capital projects between city agencies and to incorporate stormwater management features within the streetscape. Spatial and hydrologic analysis of LID features to be integrated into the Cesar Chavez streetscape was ongoing in 2009.
Ortega Public Library	This is a joint effort between SFPUC, the Department of Public Works, and the Public Library to integrate stormwater features into the design of a new public library. Design and contracting for the green roof was ongoing in 2009.
Leland Ave.	This is a joint effort between SFPUC and the Department of Public Works to develop a maintenance pilot for Leland Avenue LID features.
Transbay Terminal	This is a multi-agency review process for the Transbay Terminal. The project is aiming for innovative and integrated water and wastewater management strategies.
California Pacific Medical Center	This is a multi-campus retrofit attempting to achieve LEED Gold. Agency staff have been meeting to provide technical assistance to help the project achieve regulatory compliance and use stormwater beneficially onsite.
Newcomb Model Block project	This group has finalized the plan and design for a LID pilot for 700 Block of Newcomb Avenue. Additional efforts are underway to develop a flow and maintenance monitoring pilot.
General Hospital Rebuild	This is a hospital retrofit attempting to achieve LEED Gold. Agency staff provided technical assistance and stormwater plan review.

7.2.d Low Impact Design Demonstration Projects

The SFPUC has been developing post-project write ups for demonstration projects and posting them on the Urban Watershed Management Program website to assist developers. Through these efforts, awareness of LID technologies and their benefits is increasing among City employees, the development community, and local decision-makers.

Ortega Public Library Vegetated Roof: The Urban Watershed Management Program provided funds and technical assistance for the incorporation of a vegetated roof and stormwater best management practices into the Ortega Public Library. This project was a partnership between the SFPUC, the Department of Public Works and the San Francisco Public Library. Contracting and design for the roof was ongoing at DPW in 2009.

Terecita Traffic Calming-Stormwater Bulb-out: In 2009, the SFPUC continued to provide technical and financial assistance for the analysis and design of a traffic calming bulb on Terecita Boulevard and Bella Vista way in partnership with the Municipal Transportation Agency's Traffic Calming Program. Assistance consisted of funding for drainage analysis and percolation tests.

Cesar Chavez Streetscape Improvements: This effort includes numerous projects being led by various agencies along Cesar Chavez Street: SFPUC is executing a sewer project, the Planning Department has proposed a pedestrian realm improvement project, and the Municipal Transportation Agency has a Safe Routes to School Project. The Urban Watershed Management Program has analyzed the benefits that would result from implementing green stormwater management as a way to help meet the goals of all projects while managing stormwater at the same time. A working group with representatives of each agency was established near the beginning of 2008 in order to coordinate efforts to achieve the best results. In 2009 analysis of LID elements continued and staff from all relevant agencies continued to coordinate on issues of design, environmental review, contracting, and project schedule.

7.2.e Rainwater Harvesting Demonstration Projects

SFPUC Urban Watershed Management Program staff continued to advance installation of rainwater harvesting projects in San Francisco.

The SFPUC monitored the performance of the rainwater harvesting demonstration projects that had been installed in 2008 at Cesar Chavez Elementary and at the Southeast Treatment Plant. Based on observations of leaks and weaknesses of some of the materials used, staff recorded lessons from the experience and in 2009, the two systems were upgraded with new parts that are more durable and prevent leaks. SFPUC staff also provided parts for, and constructed (via a community event) a multi-unit rain barrel system for Sunol Elementary School (the event was covered by local media).

SFPUC staff also installed an 8-barrel rainwater harvesting demonstration project at the San Francisco Zoo's new Conservation Corner. The installation of the project was utilized as a workshop which San Francisco residents could attend for free to learn how to put together a multi-barrel system (see pictures on the following page of participants examining system parts and Zoo staff describing maintenance activities).

Rainwater Harvesting Demonstration Project at SF Zoo

SFPUC staff also were involved in many presentations and events related to rainwater harvesting in 2009. Refer to Table 15 in Section 3 of this report for a complete listing.

7.2.f Supplemental Environmental Projects Done for Stormwater

The SFPUC has identified and begun implementing stormwater-related projects in five of San Francisco's public elementary schools that are being funded in relation to compliance with an unauthorized collection system discharge in 2006. The discharge resulted in a fine and an agreement that a substantial portion of the fine would be used on Supplemental Environmental Projects (SEPs)[9].

These SEPs are being designed to be multi-purpose - they will manage stormwater runoff by increasing permeability and harvesting rainwater. The projects will also provide opportunities for watershed-based education in an outdoor classroom setting. Each project will include a long-term maintenance plan.

The SFPUC Urban Watershed Management Program has established funding criteria to ensure that the SEP funds distributed to schools result in multi-purpose projects that achieve SFPUC stormwater management goals as well as improve the aesthetic and educational value of schoolyards. The criteria are:

1. Each school must complete and implement a long-term maintenance plan with a detailed maintenance schedule and responsibilities assigned for each task.
2. Projects must include a rainwater harvesting element; this may range from a series of linked rain barrels to large-scale cisterns.

[9] The San Francisco Public Utilities Commission (SFPUC) received an Administrative Civil Liability (ACL) Complaint from the San Francisco Bay Regional Water Quality Control Board (Water Board) for an unauthorized discharge from the collection system during a significant rainstorm on November 13, 2006. The ACL included a substantial component of the financial liability to be used on Supplemental Environmental Projects (SEPs).

3. Projects must remove concrete and replace it with permeable areas planted with climate-appropriate vegetation, edibles, or stormwater management facilities such as a rain garden, pond, or wetland.
4. Projects must include interpretive signs to educate students, faculty, and community members about the project. The signs must also name the project partners.
5. All plants specified for the project must be drought tolerant or edible.
6. A portion of the total funds will be used to develop curriculum related to watershed stewardship, stormwater management, and their relationship to the built environment. These curricula should be designed such that they may be shared across the district.
7. The SFPUC Urban Watershed Management Program will review and approve all project elements.

Figure 6 shows the location of the projects: Gordon J Lau Elementary School/Commodore Stockton Pre-K (950 Clay Street, San Francisco); Lafayette Elementary School (4545 Anza Street, San Francisco); Starr King Pre-Kindergarten School (1215 Carolina Street, San Francisco); Alvarado Elementary School (625 Douglas Street, San Francisco); and Miraloma Elementary School (175 Omar Way, San Francisco).

Figure 6:
Location of Stormwater Control Projects funded as Supplemental Environmental Projects

By the end of 2009, the contracting, planning, design and construction for three of the five projects were completed (see pictures below). The remaining two are planned and designed and staff estimates that they should be completed in 2010.

Completed rainwater harvesting system and garden at Lafayette Elementary School

Interpretive sign and linked tanks at Miraloma Elementary School

A 3,000-gallon tank and tomatoes growing in raised beds at Starr King Elementary

7.2.g Current MS4 Areas

The only MS4 area for which there is discussions regarding new or redevelopment is Lake Merced, although any actual work is likely years away. Refer to Section 4.4 (Public Participation Specific to Lake Merced) and Appendix D for more information on the discussions regarding possible future development in this MS4 area.

7.2.h Future MS4 Areas

This section summarizes the work that the SFPUC has done during this reporting period to provide guidance regarding post-construction stormwater controls in developing MS4 areas that are not currently under the jurisdiction of the City and County of San Francisco but are expected to become City property in the future.

Table 23: Future MS4 Areas

Future MS4 Area	Responsible Entities
Hunters Point Shipyard (HPS) and Candlestick Point	US Navy; SF Redevelopment Agency; Developers (Lennar BVHP)
Mission Bay (MB)	Developers (Catellus), SF Mayor's Office, University of California at San Francisco
Treasure Island/Yerba Buena Island (TI/YBI)	US Navy; Treasure Island Redevelopment Authority (TIDA)

Background: The majority of large redevelopment properties within the boundaries of the City and County of San Francisco have (or are being designed to have) separate storm sewer systems. These areas are not currently part of the City's Phase II General Permit because the City has not yet taken ownership of them. When the City does accept these areas, however, they will be subject to the Phase II General Permit requirements.

Ownership of the redevelopment properties by the City and County of San Francisco is contingent upon the projects meeting the standards and criteria of several City departments, including those of the SFPUC for sanitary sewers and stormwater management. With this in mind, the SFPUC has proactively attended meetings with developers, their consultants, and other City agencies in order to provide guidance on stormwater management issues, as summarized in Table 24 below.

Table 24: Meetings Held on Future MS4 Areas (2009)

Hunters Point/Candlestick Point	
4/7/2009	City staff from various agencies, including the SFPUC, met with developers and their consultants to discuss the impact of sea level rise on Hunters Point/Candlestick Point.
8/14/2009	SFPUC Urban Watershed Management Program staff and Pollution Prevention Program staff met to go into the field and visit construction sites in Hunters Point.
9/24/2009	SFPUC staff met with the Hunters Point/Candlestick Point Task Force, representatives from the Mayor's Office, Lennar, and consultants to Lennar to discuss infrastructure design criteria (including stormwater management performance measures) for Hunters Point/Candlestick Point.
9/30/2009	SFPUC staff met with the Hunters Point/Candlestick Point Task Force and consultants to the developer to answer questions about stormwater management requirements and provide feedback on design assumptions.
10/21/2009	SFPUC staff met with consultants working on stormwater management for Hunters Point Phase I open spaces to discuss treatment options and the relationship to Hunters Point Phase II parcels.
11/12/2009	SFPUC staff met with engineering consultants to Lennar for a conceptual design discussion focusing on stormwater management in the streetscape in Hunters Point/Candlestick Point.
Treasure Island	
4/8/2009	SFPUC staff and TIDA attended conference call to discuss criteria for designing infrastructure on the island.
4/15/2009	SFPUC staff from various divisions met to discuss the costs and benefits of using facultative ponds for wastewater treatment on Treasure Island.
Mission Bay	
8/3/2009	SFPUC staff met with Mission Bay engineering consultants to discuss the requirements in the *Stormwater Design Guidelines*
8/13/2009	SFPUC staff met with Redevelopment Task Force staff about which of San Francisco's redevelopment areas would be subject to the *Stormwater Design Guidelines* and what the timing is for official adoption of the *Guidelines* by the SFPUC.
10/8/2009	SFPUC staff met with Regional Water Quality Control Board staff to discuss the status of the Mission bay development.

The SFPUC has also provided developers in MS4 areas with performance measures for stormwater management. In separate sewer areas under SFPUC jurisdiction applicants proposing new or redevelopment projects that either (a) disturb 5,000 square feet or more of the ground plane, or (b) are subject to San Francisco's Green Building Ordinance, are required to:

- Capture and treat the rainfall from a design storm of 0.75 inches using acceptable best management practices (BMPs); and

- Complete a Stormwater Control Plan (SCP) demonstrating how the project will capture and treat rainfall from the 0.75-inch design storm.

These performance measures are equivalent to LEED SS 6.2 titled "Stormwater Design: Quality Control". The rainfall depth of 0.75 inches is the LEED-based performance measure for semi-arid watersheds. Technical guidance and planning and design strategies for achieving those performance measures are available in the *San Francisco Stormwater Design Guidelines*.

The stormwater management strategies proposed in each redevelopment area are discussed in more detail below.

7.2.h.1 Hunters Point Shipyard and Candlestick Point

The Hunters Point Shipyard (HPS) is a former U.S. Naval base that will be redeveloped subject to the California Community Redevelopment Law, which governs the redevelopment of closed military bases. The Navy is conducting hazardous waste investigations and remediation in preparation for transition of the shipyard to the City and County of San Francisco. The shipyard is separated into five redevelopment parcels; A through E, plus Parcel F, which is below water level. The parcels have varying degrees of contamination and their cleanup schedules vary accordingly.

Parcel A was ready for conversion to City management in 2004 and redevelopment plans are being designed for the site. Parcel A was divided into Parcel A' and Parcel A. Parcel A' (also known as Phase I) is the area on which redevelopment will occur in the immediate future; while the remaining portion of Parcel A will remain as a buffer to the more contaminated parcels until those other parcels are ready for conveyance. Parcel A' is made up of two non-contiguous parcels – the Hillside and the Hilltop (Figure 7).

Figure 7: Hunters Point Shipyard, Parcel A' Redevelopment Area

The redevelopment plan for Parcel A' includes 1,238 residential units on 63 acres of land, 25 of which will be devoted to recreation and open space. The Hunters Point Shipyard Reuse Final Environmental Impact Report (EIR) (certified by the SF Planning Department February 8, 2000) found that the existing sewer systems in the Hilltop and Hillside areas are hydraulically and structurally inadequate and need to be replaced. The Hillside area has a combined sewer system and is connected to the City's existing combined sewer system; the EIR states that the new system should also be combined. The Hilltop area has separate sanitary and storm drain systems and those systems should be rebuilt as separated systems.

Merger of Development Projects (Hunters Point/Candlestick Point Phase II): In 2008, the redevelopment of Hunters Point Shipyard and Candlestick Point was integrated into one master plan known as HPS/CSP Phase II. The design team for the combined site focused on the following areas: B (56 acres), C (77 acres), D (97 acres), E (135 acres), E-2 (47 acres), State Park Slough (35 acres), Alice Griffith (23 acres), State Park (122 acres), City Stadium and ROW (83 acres and 19 acres, respectively), Jamestown (7 acres), and Other (13 acres). One plan alternative includes a stadium for the SF 49ers, while the other alternative does not.

The documents summarized below represent the progress made to date in stormwater management agreements for HPS Parcel A'.

HPS Stormwater Control Plan for Parcel A':

- The Developer submitted draft stormwater control plans to the SFPUC in July 2005, August 2005, October 2005, December 2005, May 2006, August 2006 and November 2006. These plans were all deemed insufficient - they either did not meet the minimum flow-based and volumetric design criteria or did not address all the pollutants of concern for the project. However, the developer claimed that developing plans with additional BMPs would to be too costly. The developer's plan is to use a hydrodynamic separator unit as an end-of-pipe treatment for the street runoff generated in the project area and planter boxes to treat the rooftop drainage. In a letter dated April 11, 2007, the SFPUC stated that it would not object to this proposal, but that if the San Francisco Regional Water Quality Control Board or other regulating body were to find the stormwater measures insufficient, the Developer would have to modify them to comply with any application regulations.
- In 2009 the developer submitted plans for open spaces on the site. To date, no Stormwater Control Plan has been submitted, however, SFPUC staff expects to receive a Stormwater Control Plans for this area in 2010.

Hunters Point Design Standards and Criteria (2003-05) and San Francisco Stormwater Design Guidelines:

- The *Sanitary and Storm Drain Sewer Systems, Utility Design Standards and Criteria* include specific language explaining the post-construction minimum design criteria and the maximum extent practicable.
- With respect to the storm drains, the *San Francisco Storm Water Design Guidelines* now lay out in even greater detail related requirements and SFPUC staff is engaged in ongoing dialogue with the developers regarding these requirements.

Hunters Point Shipyard Subdivision Code

Adopted by Ordinance #304-04 in December, 2004, it includes:

- Storm Drain Catch Basins – A "storm drain catch basin" (SDCB) was created specifically for use with the storm drainage system at HPS.
- Swirl-Separator Unit – A CDS unit will be used to capture and treat stormwater from the Phase I project area. The unit will be located near the outfall to San Francisco Bay.

EIR Mitigation Measures for Hunters Point Shipyard Storm Drain System

The following mitigation measures apply to development of stormwater controls for HPS:

Mitigation 9.B

1. Develop a Stormwater Pollution Prevention Plan that is applicable to new development under the Redevelopment Plan to control the quality of direct discharges of stormwater to near-shore waters... in accordance with the California Municipal Stormwater Best Management Practice Handbook and the U.S. EPA's proposed Phase II stormwater regulations.
2. Construct stormwater retention and treatment areas on site to improve the quality of discharges to the Bay. Specify in the SWPPP the locations of appropriate areas for stormwater infiltration that avoid toxic hot spot areas and capped areas and identify drainage patterns to direct stormwater to appropriate infiltration locations.

Mitigation 10.C

1. Restrict the amount of paved surfaces at HPS for no net increase.
2. Design the stormwater collection system to incorporate appropriate infiltration locations and drainage patterns contained in the SWPPP as provided in Measure 9.B.

Hunters Point/Candlestick Point Joint Project Proposals (2009)

In 2009, the design team for the combined Hunters Point Shipyard and Candlestick Point master plan (HPS/CSP Phase II) prepared the following documents and SFPUC staff reviewed and commented on them:

- Hunters Point/Candlestick Point Sustainability Plan
- Hunters Point/Candlestick Point LID Opportunity Study
- Hunters Point/Candlestick Point Draft Infrastructure Plan

Comments by SFPUC staff on these submittals were focused on ensuring regulatory compliance with the *San Francisco Stormwater Design Guidelines* and on encouraging innovative approaches to stormwater management and beneficial use. The development team has stated their intention to meet all regulatory requirements, use LID approaches to the maximum extent practicable, and treat storm water as near to the source as possible. These goals have led the team them to explore integration of street-side bioretention, swales, tree wells, pervious paving, and other measures throughout the development. The development team is also looking at the opportunity to create a naturalized channel at Candlestick Point, constructed wetlands at Yosemite Slough Park and large-scale cisterns for rainwater harvesting under the (potential) stadium.

While SFPUC staff applauds the direction that the plan appears to be taking, it remains at the conceptual level and there are many elements still to be worked out. Staff will continue to work with the design team as the stormwater master plan becomes more specific to ensure that the team meets stormwater requirements and generates a plan that incorporates stormwater management into the design of the entire area.

SFPUC staff will continue to be engaged in monitoring the proposed design of this project to ensure that utilities are built according to City standards and criteria, and that all applicable regulatory requirements are adhered to. Communication between the developer and the City is facilitated by the Hunters Point Task Force (HPTF), a third-party facilitator that is funded by the developer but works for the City.

7.2.h.2 Treasure Island/Yerba Buena Island

Treasure Island/Yerba Buena Island (TI/YBI) is a redevelopment area owned by the U.S. Navy and planned for transfer to the Treasure Island Development Agency. The Navy is remediating contaminated soils and groundwater left over from the Navy's former military base activities.

The draft infrastructure plans for the project show high density development concentrated on the south and west corner of the island, with vast acreage of open spaces, including urban farms and sports facilities, to the north and east. The sewage treatment plant would be located at the existing location in the northeastern corner of the island. Negotiations for utility designs, including storm drainage plans and stormwater management strategies, are in progress and the SFPUC has provided comments on the infrastructure plan. The SFPUC has indicated at meetings and via written guidance that the project should incorporate stormwater BMPs at the source of the runoff, rather than pumping flows across the island to a pond.

Conceptual proposals for stormwater management on Treasure Island reviewed by SFPUC staff include on-site treatment in the densest areas on the southwest side of the island. Green street concepts have been included throughout the street network. The design team continues to pursue a stormwater wetland for treatment near the sewage treatment plant. SFPUC staff has signed off on this idea with the caveat that spatial analysis needs to be done to determine what parts of the island could drain to the wetland most efficiently with minimal or no pumping. The various water sources that could support a wetland on Treasure Island are groundwater, recycled water, stormwater runoff, rainwater and greywater. The SFPUC would like to see a more detailed analysis of how all of these sources could help to supply the wetland with the least energy use. The Treasure Island developers and design team have indicated their commitment to meeting regulatory requirements as detailed in the *San Francisco Stormwater Design Guidelines*.

In 2009, design activity slowed considerably on Treasure Island and no plans or specifications were submitted for review. SFPUC staff continued to encourage the design team to employ spatial analysis and energy and water budgets to reach determine what the best configuration would be for the wetland and other BMPs.

7.2.h.3 Mission Bay

The Mission Bay Redevelopment Area is located south of Market Street near the waterfront. Industrial and railway activities dominated the land use up to approximately 1980. The Mission Bay area encompasses over 300 acres of San Francisco's bay front, bordered roughly by Townsend Street on the north, Mariposa Street on the south, Interstate 280 on the west and San Francisco Bay on the east. Approximately 95% of Mission Bay has a separate sewer system, while the remaining area is on the City's combined sewer system.

The Mission Bay redevelopment plans were approved in 1998. Construction and post-construction of the area is governed by the Mission Bay Risk Management Plan (RMP) which was developed to set forth land use requirements that minimize public and ecological health risks from contaminants in resident soil and fill (and associated groundwater) left in place after development. The RMP requires that native soils are covered with buildings, pavement, or landscaping that makes use of appropriate fill material and prevents prolonged contact with native soils. However, the SFPUC will assist the Developers to comply with stormwater performance measures by pursuing opportunities to incorporate flow-through treatment technologies, rainwater harvesting systems, and other BMPs that are not dependant on infiltration.

The RWQCB has determined that CDS units do not offer adequate treatment for stormwater runoff. This determination yielded a redesign of a stormwater pump station in Mission Bay in

the drainage basin known as Mariposa Basin M. The redesign included LID elements - vegetated swales and bioretention areas were proposed to improve the quality of stormwater runoff from the basin. In February of 2008 the RWQCB expressed support for this proposal and also noted their support for sending dry weather 'urban slobber' to the combined sewer. SFPUC staff supported this LID addition to the Mariposa Basin M plan and reviewed the project proposal to determine if it was in compliance with the (then pre-peer review) *San Francisco Stormwater Design Guidelines*. It was found to be in compliance.

In 2009, the project design team submitted the following documents for review and SFPUC staff has commented on them:

- Mission Bay, Blocks36-39&X3
- Mission Bay Stormwater Pump Station #3

7.3 Measurable Goals Status Report

The summary table below presents status information on the Post-Construction Controls in New Development and Redevelopment measurable goals set forth in the SF SWMP (as summarized in SWMP Appendix F: Measurable Goals Summary Table).

Table 25: Status Summary of Post-Construction Controls in New Development and Redevelopment

SWMP TASK # (from SWMP Measurable Goals Table/Appendix F)	STATUS & DOCUMENTATION
5A: Program Development (Gen Permit D.2.e.1) Development, implementation and enforcement of a program to address stormwater runoff from new development and redevelopment projects that fall under the purview of the SWMP. The ***Stormwater Design Guidelines*** developed per Task 5B will be incorporated into this program, as indicated in Task 5D. **5A.1) Track development plans / provide comments on MS4 areas to be conveyed to City** Measurable Goal: Comments relative to General Permit requirements for post-construction controls **5A.2) Identify staff / create work group / design interested party involvement process** Measurable Goal(s): Designated staff / work group / interested party involvement process **5A.3) Review / integrate, as appropriate existing planning efforts** Measurable Goal(s): Report documenting review methods, results, and recommendations for changes as necessary **5A.4) Establish Administrative processes and procedures** Measurable Goal(s): Revised / institutional processes / procedures and forms	**STATUS:** COMPLETED & ONGOING The SFPUC achieved these goals through the following activities: • The SFPUC met with various parties to track and provide input on development plans for MS4 areas that are not yet under the City and County of San Francisco's jurisdiction, but which are expected to be transferred to the City in the future. • Areas addressed include Hunters Point Shipyard/Candlestick Point, Mission Bay, and Treasure Island/Yerba Buena Island. The SFPUC's Wastewater Planning and Regulatory Compliance Division's Urban Watershed Management Team is responsible for project tracking and developing the authority to require and implement Post Construction Controls. • Coordination meetings were held involving staff from SFPUC CSD, SFPUC Planning and Regulatory Compliance Division, SFPUC Infrastructure Division, the Mayors' Department of Greening, Port of San Francisco, Department of Public Works, and others. Refer to tasks 5B – 5H for more related information.

5B: Design Guidelines Development (Gen Permit D.2.e.3) Development of design guidelines for reduction of stormwater runoff pollution in new and redevelopment projects. Measurable Goals: Materials including potentially forms, checklists, guidance, outreach, and reports. See 5D for implementation of guidelines.	**STATUS:** COMPLETED • SFPUC and Port staff collaborated for several years to develop the *San Francisco Stormwater Design Guidelines (Guidelines)*, which assist developers in both MS4 areas and combined sewer areas to comply with stormwater regulations. • The *Guidelines* were completed published in November 2009, presented to the SFPUC Commission in December 2009, and adopted by the Commission in early 2010. • Refer to Appendix G for copies of the *Guidelines.* • See Appendix C for a printout of the *Stormwater Design Guidelines* website.
5C: Training / Education (Gen Permit D.2.e.1) Development materials and train City Employees, consultants, developers and construction companies on design guidelines for reduction of stormwater and redevelopment projects. Measurable Goal(s): Number / percentage of employees trained and planning consultants, developers, and construction companies educated	**STATUS:** COMPLETED & ONGOING • In 2009, staff oversaw program interns as they completed a PowerPoint presentation detailing the requirements in the *Stormwater Design Guidelines* and demonstrating how to fill out a Stormwater Control Plan for submittal. • In 2010, staff will give this presentation to developers, city staff, and other stakeholders to educate them about this newly-developed process.
5D: Implementation of Guidelines (Gen Permit D.2.e.2) Implement Design Guidelines to address stormwater runoff (generated per Task 5B) that include a combination of structural and non-structural BMPs in new and redevelopment project. Implementation will be done through the new program detailed in Task 5A. Measurable Goal(s): Number / percentage of post construction controls implemented	**STATUS:** COMPLETED & ONGOING • In 2009, the staff began the process of mapping procedures for implementing post-construction inspections, annual self-certification by owners, tri-annual SFPUC inspections, and enforcement. These flow charts can be found in the Inspection & Enforcement chapter of the *Stormwater Design Guidelines*. As development activity increases and green infrastructure is built, staff will test and refine these procedures.
5E: MUNICIPAL CODE REVIEW (Gen Permit D.2.e.3) (Post-construction runoff from new & redevelopment projects) Review (and modify as needed) ordinances and other regulatory mechanisms to address post-construction runoff from new development and redevelopment projects to the extent allowable under State and local law. The requirements must at least include the design standards in Att. 4 of the General Permit. Measurable Goals: Memo documenting review methods, results, and recommendations for changes (as necessary).	**STATUS:** COMPLETED & ONGOING • Through coordination with the SF Green Building Ordinance, projects subject to that ordinance are now required to achieve at least one of the stormwater credits - LEED Sustainable Sites Credit 6.1 or 6.2. • Additionally, in 2009, SFPUC and Port staff partnered in drafting a Stormwater Management Ordinance applicable to all new and redevelopment projects disturbing 5,000 square feet or more. The ordinance was referred to the SF Board of Supervisors for consideration and adoption in 2010.

5H: TECHNICAL ASSISTANCE Provide as needed technical assistance on the development projects to ensure implementation of Post Construction Controls. Measurable Goal(s): List of entities to whom technical assistance was provided.	**STATUS:** COMPLETED & ONGOING SFPUC staff continues to offer technical assistance to designers, engineers, developers, and homeowners who are implementing post-construction stormwater management measures. SFPUC staff offers assistance to project proponents working at a variety of scales, from a single family homeowner retrofitting their home to use rainwater for toilet flushing and laundry, to multi-firm design teams creating stormwater master plans for San Francisco's redevelopment areas (future MS4 areas to be under City jurisdiction), such as Treasure Island. Active Developments (not in MS4 Areas): Refer to Section 7.2.c for details on technical assistance provided on post construction controls for active developments in the City (none currently in MS4 areas). Table 22 for a list of active projects and plans that have sought technical assistance from SFPUC staff to implement stormwater management into the designs of these projects. Current MS4 Areas: The only currently MS4 area for where new or redevelopment is being discussed is Lake Merced, although any actual work is likely years away. Refer to Section 4.4 (Public Participation Specific to Lake Merced) and Appendix D for more information on the discussions regarding possible future development in this MS4 area. Future City MS4 Areas: Refer to Section 7.2.h for details on work staff has done during this reporting period to provide guidance regarding post-construction stormwater controls in developing MS4 areas that are not currently under the jurisdiction of the City and County of San Francisco but are expected to become City property in the future. Table 24 provides a list of meetings SFPUC has proactively attended meetings with developers, their consultants, and other City agencies in order to provide guidance on stormwater management issues on projects in these areas.
5H: REFINEMENT OF MEASURABLE GOALS Review goals for this control measure. With information gained (in program planning, working groups, work plan development, and implementation), revise and refine goals (as needed) to make them more measurable/numeric and to address both task completion and task effectiveness. Measurable Goal(s): Evaluation of Post-Construction Controls In New Development And Redevelopment goals and revised goals (where applicable)	**STATUS:** COMPLETED & ONGOING & ACTION NEEDED The SFPUC proposes no revisions to the measurable goals for this Minimum Control Measure at this time. **Action Needed in 2010**: ➢ Revise the SWMP Tasks for the Post Construction Controls in New/Re-Development minimum control measure (and applicable measureable goals) to reflect the status of work already completed and to streamline how all of the elements of the SFPUC's work on post-construction controls is presented.

7.4 Proposed SWMP Amendments

The SFPUC recommends the following amendments be made to the SF SWMP for the Post-Construction Controls in New Development and Redevelopment

- Revise the SWMP Tasks for the Post Construction Controls in New/Re-Development minimum control measure (and applicable measureable goals) to reflect the status of work already completed and to be streamline how all of the elements of the SFPUC's work on post-construction controls is presented.

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SECTION 8: POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

8.1 Introduction

In 2009, the SFPUC continued its practice of coordinating with other agencies to perform the Pollution Prevention and Good Housekeeping activities to comply with the Phase II permit. SFPUC staff clean catch basins and conduct related inspections, in particular monitoring MS4 areas, before the rainy season. The SFPUC Collection System Division also contracts with the Department of Public Works to sweep the streets, clean catch basins and pick up any trash left in the MS4 areas. With respect to pesticide use, in San Francisco the SF Environment is responsible for the implementation of the Integrated Pest Management (IPM) Ordinance for the Municipal agencies; the SFPUC coordinates with SFE, tracks the programs progress and monitors implementation.

8.2 Progress on Work Plan Tasks

8.2.a Pollution Prevention Inspections for Municipal Operations

In 2009, SFPUC staff completed comprehensive site visits to all MS4 areas to review current conditions, assess stormwater pollution prevention BMPs (ex: no dumping curb markers, pet waste stations, etc.) and to update (as needed) the sewer base map with accurate geo-coding of all MS4 storm drains. Also, locations that had been identified as possible MS4 sites not previously mapped were also investigated. Inspections were tracked and logged using the Collection System Division's stormwater inspection module.

The field work resulted in the following changes to the list of MS4 areas under the SFPUC's Phase II General Permit:

- Addition of the following locations: Lake McNab (in McLaren Park); India Basin; Mountain Lake; and South Beach Harbor.
- Reclassifying the following as non-MS4 areas: A catch basin on 25th Avenue and structures at the ends of 16th/18th Avenue (Lobos Creek area).

Key City agency contacts that SFPUC staff met with to discuss stormwater flows and municipal operations at these MS4 sites were as follows:

- Golden Gate Park Lakes: Mark Avendano (Recreation and Parks Department)
- Pine Lake in Sterns Grove: Lisa Wayne(Recreation and Parks Department)
- Lake McNab in McLaren Park: Dan Maur (Recreation and Parks Department)
- Mountain Lake: Candie Matson (Recreation and Parks Department)
- South Beach Harbor: Ed Wesley (Harbor Staff)

An overview of findings at each location is provided below. Table 19 in Section 5 (IDDE) also provides a summary of findings regarding the state of IDDE program elements (such as existence of no dumping signs, no dumping storm drain markers, pet waste stations, and garbage cans). Maps of each location can be found in Appendix E.

Candlestick Park Stadium Parking Lot:

A significant portion of the south end of the Candle Stick Park Stadium parking lot drains through a pipe that runs under the Hunters Point Expressway and daylights onto Windsurfer Circle beach (which flows to the San Francisco Bay at Windsurfers Cove). Management of the stadium and the parking lot is overseen by the City's Recreation and Parks Department.

In 2009, SFPUC staff investigated concerns that the stormwater flowing from the stadium parking lot could be contributing to high bacterial counts that SFPUC had found during routine shoreline monitoring at Windsurfer Circle. Incidents when the Enterococcus Bacteria concentrations exceeded the water contact recreation standards of ≤104 MPN/100mL at the Windsurfer Circle sampling area seemed to coincide with wet weather events. CSD staff had visited the location and seen that portable toilets staged in the stadium parking lot were often knocked over, perhaps by winds, and that they remained floating in flooded portions of the south end of the stadium parking lot that then drains to the Bay. They had also seen large uncovered trash bins sitting in the stadium parking lot.

SFPUC determined that the Recreation and Parks Department had to take action to ensure that the parking lot was being managed with best management practices (BMPs) that would ensure that stormwater flows from the lot were not being contaminated. The SFPUC met and discussed the issue with Michael Gay, the Chief Engineer of Operations and Stadium Manager (an employee of Recreation and Parks) and followed up on September 18, 2009 with a letter formally notifying him of the SFPUC's findings and listing the actions that Recreation and Parks must take (ex: move portable toilets out of low lying areas; ensure trash bins were covered and non-leaking). Mr. Gay responded by letter on December 16th outlining the measures Recreation and Parks had taken to comply, and the ongoing BMPs that would be followed in the future. Refer to Appendix H for a copy of the letter from SFPUC and a copy of the response back from the Stadium Manager.

Golden Gate Park Lakes:

- *Elk Glen Lake:* CSD Staff inspected the park two times in 2009. They found that RPD follows a regular schedule in cleaning and maintaining the parks' facilities, and do a regular clean up of the trash receptacle. CSD staff found irrigation pipes leading from the local aquifer to the lake, as well as two drop inlets near the intersection of Martin Luther King Jr. Drive and 25th Avenue that diverts storm runoff into the lake.
- *Middle Lake:* CSD Staff inspected the park two times in 2009. They found that RPD follows a regular schedule in cleaning and maintaining the parks' facilities, and do a regular clean up of the trash receptacles. CSD staff found one drop inlet that diverts street runoff into the lake, however the outfall was not visible due to the vegetation overgrowth.
- *Stow Lake:* CSD staff inspected the park one time in 2009 and confirmed that that RPD staff follow a regular schedule in cleaning and maintaining the nearby facilities and do a regular clean up of the trash receptacles. A total of eleven drop inlets were located which divert rainwater to the lake. CSD staff also found irrigation pipes leading from the local aquifer to the lake and an overflow pipe connected to the sewer system.

India Basin: ***(Newly Mapped MS4 Area)***

The India Basin area has two points from which storm water flows to the SF Bay, one from the India Basin Shoreline Park and one from an area refereed to as India Basin Open Space.

- *India Basin Shoreline Park:* CSD staff inspected the park two times in 2009 and confirmed that RPD follows a regular schedule in cleaning and maintaining the parks' facilities, and does a regular clean up of the trash receptacles. CSD staff found one storm drain that discharges directly into the bay.
- *India Basin Open Space***:** CSD staff inspected the area one time in 2009 and confirmed that RPD follows a regular schedule in cleaning and maintaining the open space facilities, and does a regular clean up of the trash receptacles. CSD staff found one catch basin at the cul-de-sac on Arelious Walker Drive that drains directly to the Bay. This are is and undeveloped area which frequently floods during heavy rain events.

Lake Merced:

Two inspections were conducted at Lake Merced in 2009. Catch basins and storm drain drop inlets were inspected in the parking areas and along the circumferential multi-use trail by Lake Merced; CSD staff informed Recreation and Parks Department (RPD) personnel and SFPUC Sewer Operations staff of those in need servicing (i.e., cleaning out). RPD personnel maintain a regular schedule of servicing the trash cans in the park areas by Lake Merced. CSD staff also provided one box of biodegradable pet waste bags (5,000 bags) to RPD staff for them to use in stocking the pet waste stations by Lake Merced.

Lobos Creek Area (16th & 18th Avenues and 25th Avenue):

The SWMP and past Annual Reports included two discrete areas as sites of MS4 drains flowing into Lobos Creek (one location was the end of 25th Avenue and the other was the ends of 16th and 18th Avenues). During 2009 field visits to MS4 areas, CSD staff determined that these areas should not be categorized as MS4 areas for the reasons outline below. Accordingly, Lobos Creek and these discrete locations have been removed from the list of MS4 areas under the City's Phase II General Permit.

- *25th Avenue:* The catch basin located at the end of the 25th Avenue previously drained to Lobos Creek near Baker Beach. The outfall to Lobos Creek was subsequently plugged and the catch basin connected to the combined sewer line at 25th Avenue North. Therefore this area will no longer be categorized as an MS4 location.
- *Ends of 16th/18th Avenues:* These avenues are serviced by the City's combined sewer system and catch basins located near the terminus of both 16th and 18th Avenues collect stormwater runoff, which is conveyed to the combined sewer system. In the case of very extreme storms, however, there may some stormwater runoff from these streets that flows through holes created in the walls at the end of these streets. The holes were created to allow for stormwater, which would have naturally flowed overland, to drain, thereby preventing water from flowing into nearby driveways and garages. The CSD has determined that these streets should not be considered MS4 sites given that the stormwater likely rarely flows through these wall holes. Any flow that would go through the wall holes would follow the path that overland storm water flow would have followed, as a result, stormwater flows would be absorbed by the vegetation and surrounding natural environment within the Lobos Creek watershed.

McLaren Park Lakes: ***(Newly Mapped MS4 Area)***

- *Lake McNab:* CSD Staff inspected the park three times in 2009 and confirmed that RPD staff follow a regular schedule of cleaning and maintaining the nearby facilities. CSD staff found one small stream flowing into the lake, a man-made drainage channel diverting surface runoff from the road into the lake, and the lake overflows into the combined sewer system

Mountain Lake: ***(Newly Mapped MS4 Area)***

Mountain Lake is not located on City property but is part of the Presidio of San Francisco. However, a trail on City property above the Lake has a storm drain (drop inlet) that drains onto the bank of the lake. The banks are heavily overgrown with vegetation and surface runoff is likely to mostly infiltrate into the subsurface rather than flow into the lake. On Presidio property, there are five drop inlets that flow directly to the lake. RPD personnel assigned to Mountain Lake Park have regularly-scheduled maintenance of the parks' facilities and do a regular clean up of the trash receptacles in the area. CSD Staff inspected this site three times in 2009 and gave the RPD Personnel one box of biodegradable pet waste bag (5,000 bags) to be used to restock the pet waste stations located by the lake.

Ocean Beach:

Ocean Beach lies on the western coast of San Francisco; it is part of the Golden Gate National Recreation Area (GGNRA) and is operated by the National Park Service (NPS). GGNRA jurisdiction extends from the beach to the southern most edge of the nearby parking lot (which is City property). The parking lot is maintained by the SF Department of Public Works (SF DPW) and has 17 storm drains that discharge to the beach area close to the sea wall; the SFPUC Collection System Division maintains and cleans the storm drains.

The southern most edge of parking lot is surrounded by curb cuts and a sidewalk/walkways – both are GGNRA property. The curb cuts and walkways conduct stormwater from the parking lot toward a sea wall that has about 180 "weep holes" which allow stormwater to flow onto the beach.

CSD staff inspected Ocean Beach two times in 2009 and confirmed that the SF DPW staff clean and maintain the area on an as needed basis, and do as needed clean up of the trash receptacles.

San Francisco Recreation and Parks Small Craft Marina:

The San Francisco R&P Small Craft Marina is located on the northern waterfront of the City. CSD staff inspected the marina four times in 2009 and confirmed that that RPD staff follow a regular schedule of cleaning and maintaining the marina's facilities and do a regular clean up of area trash receptacles. CSD staff located 13 drop inlets that discharge storm runoff directly into the bay.

South Beach Harbor: ***(Newly Mapped MS4 Area)***

South Beach Harbor was built by the San Francisco Redevelopment Agency (SFRA) on property leased from the Port of San Francisco. It is located between Pier 40 and AT&T Park. CSD staff inspected the marina two times in 2009 and confirmed that SFRA follows a regular schedule of cleaning and maintaining the marina's facilities and doing a regular clean up of the trash receptacles in the area. CSD staff located 12 drop inlets in the parking lot that are connected to the combined sewer system; however staff also noted an additional 3 drop inlet that discharge directly to the bay. Also, staff identified 8 floor drains on the promenade and 12 drains on Pier 40 that discharge directly to the Bay.

Stern Grove:

- *Pine Lake:* CSD staff inspected Pine Lake three times during 200 and identified seven small storm drains that discharge storm water into an unlined ditch that runs parallel to the service road from Stern Grove to Pine Lake. The storm water likely infiltrates into the subsurface, rather than flowing into the lake, in most cases and runoff to the lake would occur only during heavy rainfall. Personnel of the City's Recreation and Parks Department maintain a regular schedule of servicing the trash cans in the Stern Grove. CSD staff provided one box of biodegradable pet waste (5,000 bags) to RPD personnel assigned to the site to use in stocking the pet waste stations by the lake.

8.2.b Integrated Pest Management for Municipal Agencies

SF Environment implements San Francisco's Integrated Pest Management (IPM) Ordinance (Ch. 3, Section 305(g) of the San Francisco Environment Code) and manages the Municipal IPM Program for the City and County of San Francisco. They conduct annual IPM trainings for municipal employees, organize semi-annual IPM conferences, annually review and update the City's Reduced Risk Pesticides List, support reduced risk pesticide product testing, and convene a monthly IPM Technical Advisory Committee which represents the City's major pesticide users.

SFE is switching its pesticide use reporting database to a web-based system, so the pesticide use data from 2009 is not yet available. The most recent summary (2006-2007) shows that since 1999 there has been an 83% reduction of Tier I pesticides and a 53% reduction of Tier II pesticides.

In 2009, SFE organized two pesticide application safety/IPM trainings, plus two trainings in the use of propane torches (a.k.a. 'weed flamers') as alternatives to herbicides. Over 300 City staff attended the trainings. The most recent bi-annual report (for 2006 and 2007) can be found at the following link: http://bit.ly/aMTgJ7. A copy of the Table of Contents and Executive Summary is included in Appendix H of this annual report.

8.2.c Street Sweeping, Dumped Debris Cleanup, and Catch Basin Cleaning

The SFPUC coordinates with the San Francisco Department of Public Works to conduct necessary street sweeping activities. In 2009, SF DPW swept 143,704 curb miles in San Francisco (110 routes per week, not including holidays, or approximately 2,533 curb miles on controlled routes and approximately 230.5 curb miles on uncontrolled routes per week.) The decrease in curb miles swept is due to route reduction from weekly to biweekly sweeping on ten (10) controlled routes. High-use areas are swept daily or three times per week. Most other areas are swept weekly. Some small alleys are swept monthly or less frequently on an as-needed basis.

SF DPW removed 22,767 tons of debris from the streets and sidewalks. E-waste and other toxics can be found dumped in various locations and DPW personnel keep many toxics off the streets and out of the environment by picking up batteries, tires, and e-waste. There are also several trash clean up programs that take place in the City, such as Clean Team Events and Coastal Clean Up day.

Catch basin cleaning happens on an ongoing basis throughout the year. San Francisco has approximately 23,000 catch basin and in FY08-09 approximately 7,300 were inspected and cleaned out by Collection System Division Sewer Operations crews. Also, in 2009, DPW swept, cleaned and weeded over 87,000 catch basins; on average, each catch basin is cleaned three to four times during the year. During storms, DPW will attempt to relieve catch basins first; if they are unable to unplug the catch basin, the location is referred to SFPUC for vactor truck service. Sewer cleaning

also takes place on occasion – generally prior to televising in the sewers to ensure everything is intact prior to road pavement jobs, or (less frequently) due to obstructions in the system.

8.2.d Inter-Departmental Contact Sheet/Coordination

The SF SWMP identified that interdepartmental communication and coordination was key to ensuring that reports of illegal discharges from municipal operations to storm drains would reach the Collection System Division for proper investigation. An inter-departmental contact sheet was initially developed that was used to educate employees of other City agencies (such as DPW) to direct calls regarding stormwater pollution to CSD, however, now most reporting of illicit discharges comes from the City-wide 311 number. Both residents and City employees widely use this number for reporting illicit discharges and dumping. SFPUC Collection System Division staff attends monthly 311 meetings that are held to ensure that calls being received through 311 and are being routed to appropriate departments.

8.2.e Stormwater Pollution Prevention Trainings

The Phase II General Permit requires permittees to develop an operation and maintenance program that includes training to prevent or reduce pollutant runoff from municipal operations. The program must include employee training to prevent or reduce stormwater pollution from activities such as park and open space maintenance, fleet building maintenance, new construction land disturbances, and storm water system maintenance.

Currently, the MS4 areas in San Francisco are small discrete park and open space areas and therefore the required program goals are being achieved through the following activities:

- The City's IPM program trainings (described in Section 8.2.b above);
- Site visits done to MS4 areas in 2009 and conversations held with applicable site maintenance staff regarding stormwater pollution prevention(as described in Section 8.2.a);
- Citywide education on stormwater pollution prevention carried out by the SFPUC (as described in Section 5: Illicit Discharge and Detection); and
- Construction site inspections and training (as described in Section 6: Construction Site Stormwater Runoff Control).

When large MS4 areas that are currently under development (such as Mission Bay and Hunters Point Shipyard) are accepted by the City and County of San Francisco, the SFPUC will reassess the need for increased trainings as these areas may have municipal operations that require increased outreach and training.

8.3 Measurable Goals Status Report

The summary table below presents status information on the Pollution Prevention / Good Housekeeping for Municipal Operations measurable goals set forth in the SF SWMP (as summarized in SWMP Appendix F: Measurable Goals Summary Table).

Table 26: Status Summary of Pollution Prevention / Good Housekeeping For Municipal Operations

SWMP TASK # (from SWMP Measurable Goals Table/Appendix F)	STATUS & DOCUMENTATION
6A: IPM ORDINANCE/PROGRAM (Gen Permit D.2.f.1) Continue & track (and improve as needed) implementation of the City's IPM ordinance and program. Measurable Goal(s): Summary of actions taken	**STATUS:** COMPLETED & ONGOING • SF Environment implements San Francisco's Integrated Pest Management (IPM) Ordinance and manages the Municipal IPM Program for the City and County of San Francisco, which includes: annual IPM trainings for municipal employees; semi-annual IPM conferences; annually reviews and updates of the City's Reduced Risk Pesticides List; support of reduced risk pesticide product testing; and convening of a monthly IPM Technical Advisory Committee composed of the City's major pesticide users. • SFE is switching its pesticide use reporting database to a web-based system, so pesticide use data from 2009 is not yet available. The most recent summary (2006-2007) shows that since 1999 there has been an 83% reduction of Tier I pesticides and a 53% reduction of Tier II pesticides. • In 2009, SFE organized two pesticide application safety/IPM trainings, plus two trainings in the use of propane torches (a.k.a. 'weed flamers') as alternatives to herbicides. Over 300 City staff attended the trainings. • The most recent bi-annual report (for years 2006 and 2007) can be found at the following link: http://bit.ly/aMTgJ7. A copy of the Table of Contents and Executive Summary is included in Appendix H of this annual report.
6B: STREET SWEEPING (Gen Permit D.2.f.1) Continue & track (and improve as needed) implementation of the City's street sweeping program. Measurable Goal(s): Amount/content of collected material; Frequency of sweeping	**STATUS:** COMPLETED & ONGOING • In 2009, the SFPUC continued to track the implementation of the City's street sweeping program. • In 2009, SF DPW swept 143,704 curb miles in San Francisco (110 routes per week, not including holidays, or approximately 2,533 curb miles on controlled routes and approximately 230.5 curb miles on uncontrolled routes per week.). Also, SF DPW removed 22,767 tons of debris from the streets and sidewalks. • No specific separate records are kept for street sweeping in the current individual locations with MS4 drains addressed by the SF SWMP.

6C: CATCH BASIN CLEANING (Gen Permit D.2.f.1) Continue & track (and improve as needed) implementation of the City's catch basin cleaning program. Measurable Goal(s): Number / percentage of catch basins cleaned; Frequency of cleanings; Number of blocked catch basin incidents	**STATUS:** COMPLETED & ONGOING • In 2009, the SFPUC continued to track the implementation of the City's catch basin cleaning program. • Catch basin cleaning happens on an ongoing basis throughout the year. San Francisco has approximately 23,000 catch basin and in FY 08-09 approximately 7,300 were inspected and cleaned out by Collection System Division Sewer Operations crews. • Also, in 2009, SF DPW swept, cleaned, and weeded over 87,000 catch basins; on average, each catch basin is cleaned three to four times during the year. During storms, DPW will attempt to relieve catch basins first; if they are unable to unplug the catch basin, the location is referred to SFPUC for vactor truck service. Sewer cleaning also takes place on occasion – generally prior to televising in the sewers to ensure everything is intact prior to road pavement jobs, or (less frequently) due to obstructions in the system.
6D: TRASH CLEANUP (Gen Permit D.2.f.1) Continue & track (and improve as needed) implementation of the City's trash clean up programs. Measurable Goal(s): Amount/content of collected material; Frequency of collection	**STATUS:** COMPLETED & ONGOING • In 2009, the SFPUC continued to track the City's trash clean up programs. • In 2009, SF DPW removed 22,767 tons of debris from the streets and sidewalks. E-waste and other toxics are increasingly found dumped in various locations. SF DPW's personnel keep many toxics off the streets and out of the environment by picking up batteries, tires, and e-waste. • There are also several trash clean up programs that take place in the City, such as Clean Team Events and Coastal Clean Up day. • No data currently exists on the impact of these programs specifically on current MS4 areas in San Francisco.
6E: INTER-DEPARTMENTAL CONTACT SHEET (Gen Permit D.2.f.1) Revise and distribute inter-departmental contact sheet which educates City employees on who/which dept to call regarding stormwater pollution related violations. Measurable Goal(s): #/percentage of employees provided sheet	**STATUS:** COMPLETED & ONGOING • The SF SWMP identified that interdepartmental communication and coordination was key to ensure that reports of illegal discharges from municipal operations to storm drains would reach the Collection System Division for proper investigation. • An inter-departmental contact sheet was initially developed that was used to educate employees of other City agencies (such as DPW) to direct calls regarding stormwater pollution to CSD, however, now most reporting of illicit discharges comes from the City-wide 311 number. Both residents and City employees widely use this number. • SFPUC Collection System Division staff attends monthly 311 meetings that are held to ensure that calls being received through 311 and are being routed to appropriate departments.

6F & 6G: REQUIRED TRAININGS AND SUPPLEMENTAL TRAININGS (Gen Permit D.2.f.2) 6F: Evaluate existing non-storm water trainings which have some relation to storm water pollution prevention to determine if storm water pollution prevention elements can be incorporated (such as IPM training, hazardous waste training, etc). Measurable Goal(s): Number/% of staff trained 6G: Continue (and improve as needed) training of employees on stormwater specific topics to prevent or reduce stormwater pollution from activities such as park and open space maintenance, fleet building maintenance, new construction and land disturbances, and stormwater system maintenance. *Measurable Goal(s):* New Training materials and number of staff trained	**STATUS:** COMPLETED & ONGOING Currently, the MS4 areas in San Francisco are small discrete park and open space areas. Therefore required program goals are being achieved through the following: • The City's IPM program trainings (described in Section 8.2.b); • Site visits done to MS4 areas in 2009 and conversations held with applicable site maintenance staff regarding stormwater pollution prevention (as described in 8.2.a); • Citywide education on stormwater pollution prevention carried out by the SFPUC (as described in Section 5: Illicit Discharge and Detection); and • Construction site inspections and training (as described in Section 6: Construction Site Stormwater Runoff Control). When large MS4 areas that are currently under development (such as Mission Bay) are accepted by the City, the SFPUC will reassess the need for increased trainings as these areas may have municipal operations that require increased outreach and training.
6H: REFINEMENT OF MEASURABLE GOALS Review goals for this control measure. With information gained (in program planning, working groups, work plan development, and implementation), revise and refine goals (as needed) to make them more measurable/numeric and to address both task completion and task effectiveness. Measurable Goal(s): Evaluation of Pollution Prevention / Good Housekeeping for Municipal Operations goals and revised goals (where applicable)	**STATUS:** COMPLETED & ONGOING & ACTION NEEDED The SFPUC proposes no revisions to the measurable goals for this Minimum Control Measure at this time. **Action Needed in 2010**: ➢ Given the fact that the current MS4 areas are discrete park and/or open space areas, the measurable goals for this minimum control measure should be reviewed to consider whether it is realistic to track data specific to such discrete areas. The measurable goals should also be re-assessed to consider the fact that San Francisco will soon be accepting assets in MS4 areas currently under development, and that program implementation and goals may be able to be tracked differently in these areas.

8.4 Proposed SWMP Amendments

The SFPUC recommends the following amendments be made to the SF SWMP for the Pollution Prevention / Good Housekeeping for Municipal Operations minimum controls measures.

- Given the fact that the current MS4 areas are discrete park and/or open space areas, the measurable goals for this minimum control measure should be reviewed to consider whether it is realistic to track data specific to such discrete areas. The measurable goals should also be re-assessed to consider the fact that San Francisco will soon be accepting assets in MS4 areas currently under development, and that program implementation and goals may be able to be tracked differently in these areas.